



# ZXHN H3601

## Home Gateway

# Maintenance Management Guide

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Version:V1.0

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## **Revision History**

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# Chapter 1

## Safety Precautions

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Before using the device, read the following safety precautions. ZTE bears no liability to the consequences incurred by violation of the safety instructions.

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### Usage Cautions

- Read all the safety cautions carefully before using the device.
- Only use the accessories included in the package, such as power supply adapter and battery.
- Do not extend the power cord, otherwise the device will not work.
- The power supply voltage must meet the requirements of the device input voltage (The voltage fluctuation range is less than 10%).
- Keep the power plug clean and dry to prevent any risk of electric shock or other dangers.
- Disconnect all the cables during a lightning storm to prevent the device from damage.
- Power off and unplug the power plug when the device is not in use for a long time.
- Do not attempt to open the covers of the device. It is dangerous to do so when the device is powered ON.
- Power off and stop using the device under the conditions such as, abnormal sound, smoke, and strange smell. Contact the service provider for maintenance if the device is faulty.

### Environment Requirements

- Ensure proper ventilation to the device. Place the device away from direct sunlight.
- Keep the device ventilated and dry. Never spill any liquid on the device.
- Do not place any object on the device to prevent any deformation or damage to the device.

- Do not place the device near any source of heat or water.
- Keep the device away from any household appliances with strong magnetic or electric fields, such as microwave oven and refrigerator.

### **Cleaning Requirements**

- Before cleaning, power off the device, and unplug all the cables connected to the device, such as power cable, optical fiber, and Ethernet cable.
- Do not use any liquid or spray to clean the device. Use a soft dry cloth.

### **Environment Protection**

- Do not dispose the device or battery improperly.
- Observe the local regulations about the equipment disposal or treatment.

### **Restrictions in the 5 GHz Band**

According to Article 10(10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium(BE), Bulgaria(BG), the Czech Republic(CZ), Denmark(DK), Germany(DE), Estonia(EE), Ireland(IE), Greece(EL), Spain(ES), France(FR), Croatia(HR), Italy(IT), Cyprus(CY), Latvia(LV), Lithuania(LT), Luxembourg(LU), Hungary(HU), Malta(MT), Netherlands(NL), Austria(AT), Poland(PL), Portugal(PT), Romania(RO), Slovenia(SI), Slovakia(SK), Finland(FI), Sweden(SE), the United Kingdom(UK), Turkey(TR), Norway(NO), Switzerland(CH), Iceland(IS), and Liechtenstein(LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

### **RF Exposure Information**

The Maximum Permissible Exposure (MPE) level is calculated based on a distance of  $d=20$  cm between the device and the human body. To maintain compliance with the RF exposure requirement, a separation distance of 20 cm between the device and the human should be maintained.

### **EU Declaration of Conformity**

Hereby, ZTE Corporation declares that the radio equipment type ZXHN H3601 is in compliance with Directive 2014/53/EU, The full text of the EU declaration of conformity is available at the following Internet address:

<http://support.zte.com.cn/support/cer/EU>

### Environmental Information

The equipment you purchased has required the extraction and use of natural resources for its production. It may contain substances that are hazardous to people's health and to the environment. To avoid putting such substances into our environment and to reduce pressure on our natural resources, we ask that you reuse or recycle your end-of-life equipment by using an accredited electronics take-back system.

The symbols below indicate that this product should be reused or recycled and not simply discarded. Please locate and use an appropriate reuse and recycling site.

If you need more information on collection, reuse and recycling systems, contact your local or regional waste administration. You may also contact your equipment provider for more information on the environmental performances of these products.







# Chapter 2

## Product Overview

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Package Check.....	2-1
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### 2.1 Package Check

After unpacking the product, check that the following items are complete.

Name	Quantity
ZXHN H3601	One
AC-DC power supply adapter	One
RJ-45 Ethernet cable	One
User manual	One



#### Note

The list is only for reference. The actual contents may vary from the list.

If any item is found to be wrong, missing, or damaged, contact your service provider.  
Keep the package and all the items in good condition if you want to replace the product.

### 2.2 Product Specifications

Technical Specifications	
Dimension	128 mm × 79 mm × 180mm (Width × Depth × Height)
Certification	CE Certification and Wi-Fi Certification
Power adapter	Input: AC 100 V – 240 V, 50 Hz/60 Hz Output: DC 12 V, 1.5 A

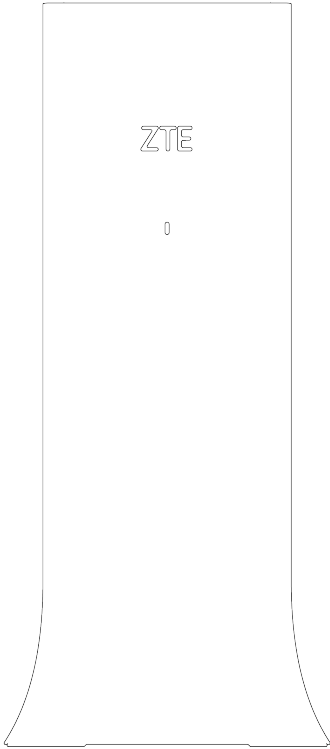
Technical Specifications	
Environment Requirements	
Operation temperature	0 °C – 40 °C (32 °F – 104 °F)
Operation humidity	5% – 95% (non-condensing)
Wi-Fi Radio Specifications	
Radio Frequencies	Maximum Output Power
Wi-Fi 2.4 GHz band: 2400 – 2483.5 MHz	EIRP: 19 ± 1 dBm
Wi-Fi 5 GHz band: 5150 – 5250 MHz	EIRP: 22 ± 1 dBm
Wi-Fi 5 GHz band 5250 – 5350MHz	EIRP: 19 ± 1 dBm
Wi-Fi 5 GHz band 5470 – 5725MHz	EIRP: 26 ± 1 dBm

## 2.3 Hardware Description

### Front panel

Figure 2-1 shows the front panel of the ZXHN H3601.

Figure 2-1 The Front Panel

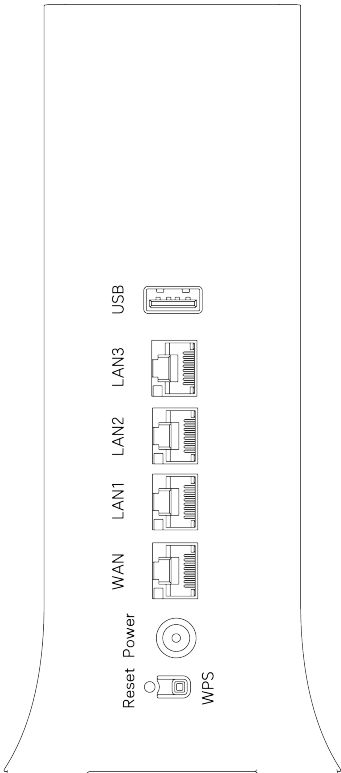


LED Color	Status	Description
	Off	The power supply is not connected or is faulty.
Red	On	Steady on: The system is performing self-detection or the self-detection fails. Flashing: Uplink connection failed or configuration synchronization failed in agent mode.
Green	On	Steady on: The uplink connection is normal. Or the connection is successful in agent mode and the configuration is synchronized successfully. Or the wireless uplink signal is strong in agent mode. Flashing: WLAN terminal is in WPS accessing process. Or the wireless uplink signal is weak in agent mode.
Green + Red	On	Flashing: Software upgrade progress.

**Rear panel**

Figure 2-2 shows the interfaces and buttons on the rear panel of the ZXHN H3601.

Figure 2-2 The Rear Panel



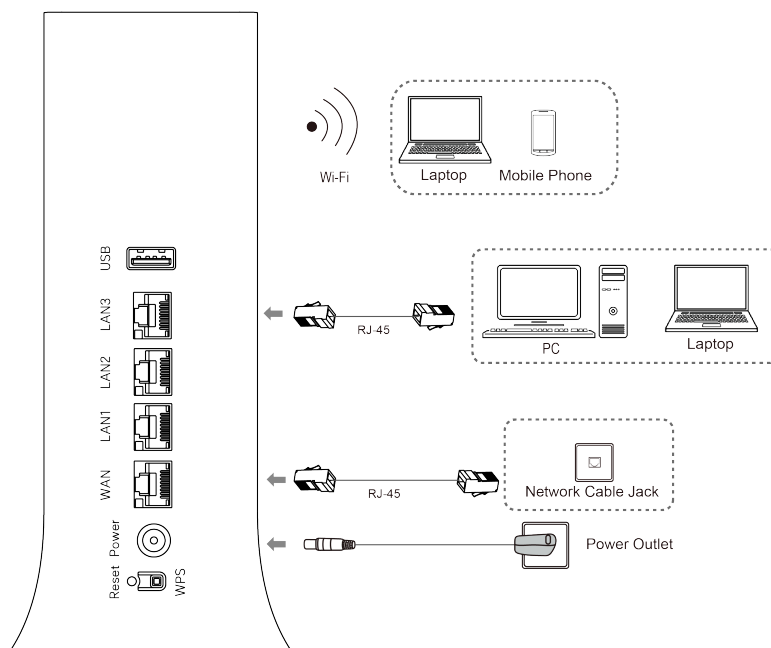
Interface/Button	Function
USB	USB 2.0 host port: Used for the USB storage device, printer or Dongle connection

Interface/Button	Function
LAN1-LAN3	RJ-45 port: Used to connect the modem to PCs, STBs or other network devices
LAN1/LAN2	RJ-45 port, it is used to connect to the uplink access network.
Power	Power supply socket: Used to connect to the power adapter
Reset	Reset pinhole: During power ON period, hold on this button for more than 5 seconds to reset the current settings to the factory default.
WPS	WPS Push Button

## 2.4 Hardware Connection

Figure 2-3 shows the devices that are connected to interfaces of the ZXHN H3601.

**Figure 2-3 Cable Connection**



The factors affecting the wireless network coverage range include the location of the product, distance between the product and a wireless terminal, number of obstacles, obstacle material and density, and interference source. It is recommended that you place the product in accordance with the following principles to maximize the strength of wireless signals.

- The product should be far away from the objects affecting wireless signal propagation, for example, an object with a high reflectivity such as a metallic object or a mirror.

- The product should be far away from an electrical appliance with a strong magnetic or electric field, for example, a microwave oven, a refrigerator, a wireless router, a cordless phone, or a Bluetooth product.
- The product should be installed on the same floor as the applied area.
- Do not put other objects on the product. Try to reduce the number of obstacles between the product and a wireless terminal.
- Horizontally place the product in the middle of the applied area and do not put it in a corner.
- Do not place the product at a high position while it is placed horizontally. The recommended height is 1.2 to 1.5 meters.



# Chapter 3

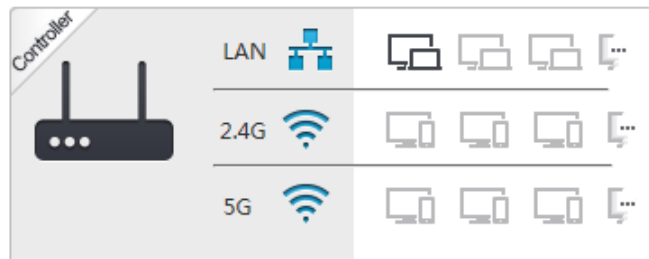
## Topology

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In the controller status and agent status, the corresponding topologies are different.

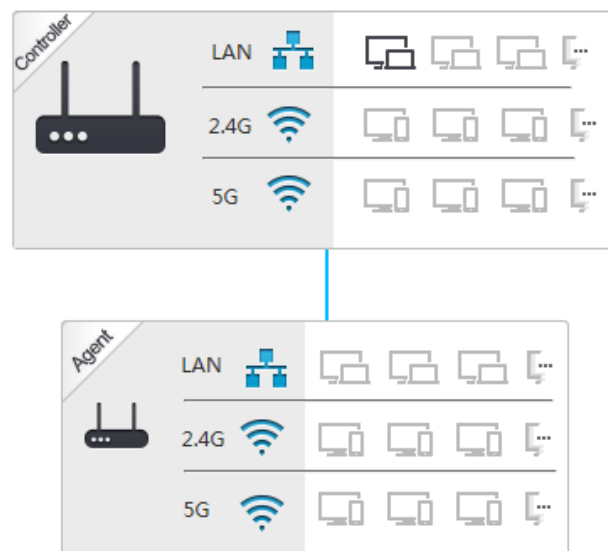
- If ZXHN H3601 is set to controller, the corresponding topology diagram is shown in [Figure 3-1](#).

**Figure 3-1 Controller**



- If ZXHN H3601 is set to agent, the corresponding topology diagram is shown in [Figure 3-2](#).

**Figure 3-2 Agent**







# Chapter 4

## Configuration Preparation

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Configure TCP/IP.....	4-1
Login.....	4-2

This manual uses the Windows operating system as an example for describing how to configure the ZXHN H3601. Before configuring the ZXHN H3601, you need to perform the following operations:

- Ensure that a crossover or straight-through Ethernet cable connects a computer to the device.
- Ensure that the TCP/IP configuration on the computer is correct.
- Stop any firewall or other security software operating on the computer.
- Disable the proxy setting of Internet Explorer.

### 4.1 Configure TCP/IP

To log in to the ZXHN H3601 on a computer, you need to set the IP address of the computer to ensure that the IP address of the computer and the maintenance IP address of the ZXHN H3601 are in the same network segment.

#### Context

The default maintenance IP address of the ZXHN H3601 is as follows:

- IP address: 192.168.1.1
- Subnet mask: 255.255.255.0
- Default gateway: 192.168.1.1

#### Steps

1. Use an Ethernet cable to connect a local computer to the LAN interface of the ZXHN H3601.

2. On the local computer, double-click **Local Area Connection** and click **Properties**.  
The **Local Area Connection Properties** dialog box is displayed.
3. Double-click **Internet Protocol (TCP/IP)**. The **Internet Protocol (TCP/IP) Properties** dialog box is displayed. Set the IP address to *192.168.1.200*, subnet mask to *255.255.255.0*, and default gateway to *192.168.1.1*.
4. Click **OK**.

### Postrequisite

After the IP address of the computer is set, you can run the **Ping** command to ping the IP address 192.168.1.1. If the ping operation is successful, it indicates that the TCP/IP configuration is correct and the computer is properly connected to the ZXHN H3601.

## 4.2 Login

The ZXHN H3601 provides a Web-based configuration and management system. You can enter a specified IP address in the address bar of Internet explorer to access the system.

### Prerequisite

A computer is directly connected to the ZXHN H3601, and their IP addresses are in the same network segment.

### Steps

1. Open Internet explorer, and enter *http://192.168.1.1* (default maintenance IP address of the ZXHN H3601) in the address field. Press the **Enter** key. The login page is displayed, see [Figure 4-1](#).

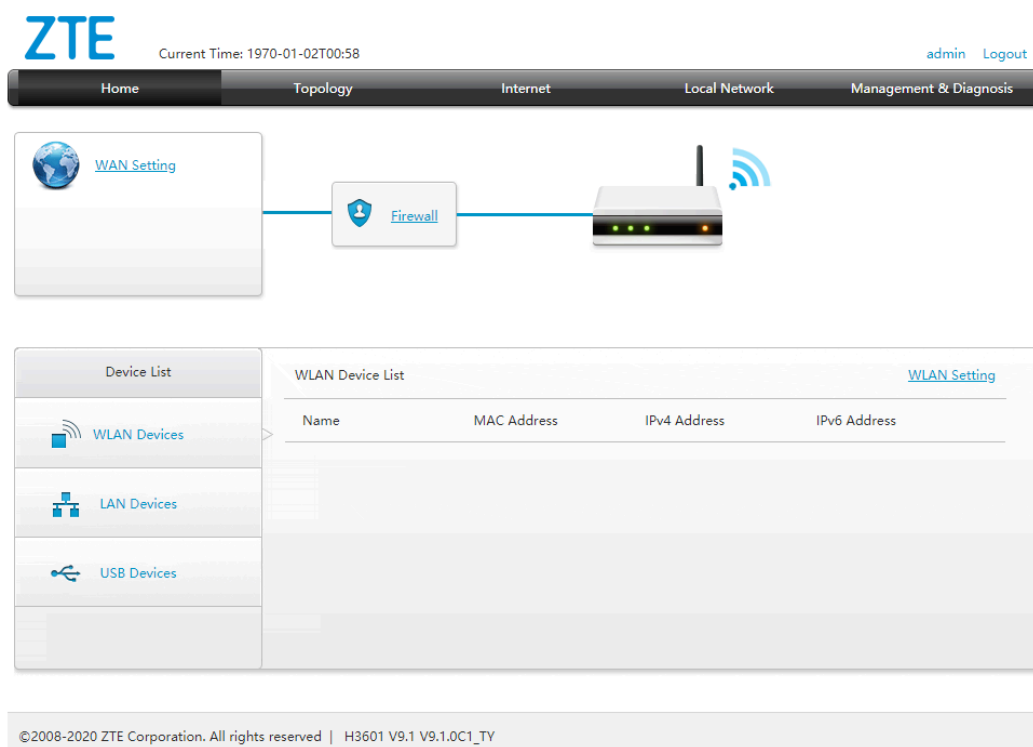
**Figure 4-1 Login Page**



Figure 4-1 shows the login page of the ZXHN H3601 V9.1. The page features a header with a padlock icon and the text "Welcome to H3601 V9.1. Please login." Below the header, there are two input fields labeled "Username" and "Password". A blue "Login" button is located at the bottom right of the page.

2. Enter your username and password and click **Login**. The configuration page is displayed, see [Figure 4-2](#).

**Figure 4-2 Configuration Page**





# Chapter 5

## Configure the Internet

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## 5.1 Check the Status

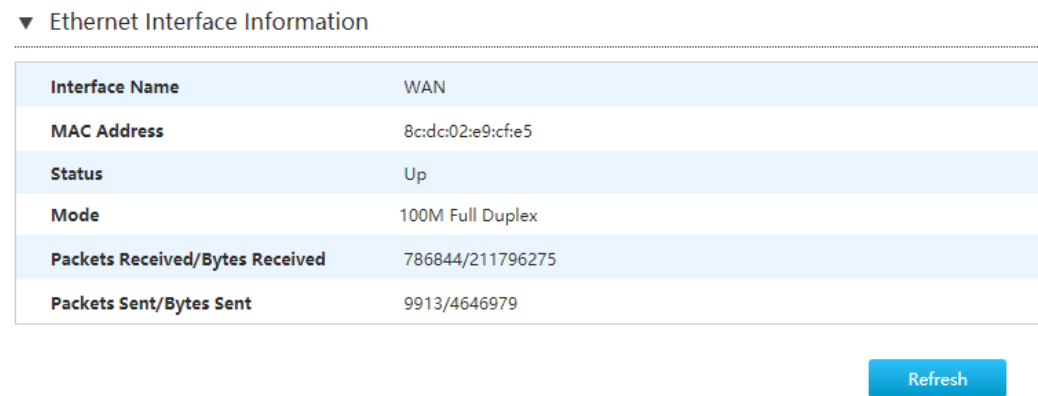
### 5.1.1 Check the Ethernet Interface Information

The section describes how to check the Ethernet interface status.

#### Steps

- 1. On the main page of the ZXHN H3601, select **Internet > Status > Ethernet Interface Information** to the **Ethernet Interface Information** page, see [Figure 5-1](#).

Figure 5-1 Ethernet Interface Information



2. Click **Refresh** to refresh the information.

## 5.1.2 Check the Ethernet Connection Status

The section describes how to check the Ethernet connection status.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Status > Ethernet Connection Information** to the **Ethernet Connection Information** page, see [Figure 5-2](#).

**Figure 5-2 Ethernet Connection Information**

#### ▼ Ethernet Connection Status

Connection Name	test
Type	Static
IP Version	IPv4
NAT	On
IP Address	10.46.56.110/255.255.255.192
DNS	10.30.1.9/0.0.0.0/0.0.0.0
IPv4 Gateway	10.46.56.65
IPv4 Connection Status	Connected
Disconnect Reason	None
WAN MAC	8c:dc:02:e9:cfe5

Refresh

2. Click **Refresh** to refresh the information.

## 5.1.3 Check the 3G/4G Status

The section describes the 3G/4G status.


### Steps

**Check the mobile network information.**

1. On the main page of the ZXHN H3601, select **Internet > Status > 3G/4G > Mobile Network** to go to the **Mobile Network** page. The signal strength can verify the network card is plugged, see [Figure 5-3](#).

**Figure 5-3 Mobile Network**

▼ Mobile Network

Signal Strength	
Service Provider(MCC/MNC)	CHN-CUGSM
Network Mode	UMTS
IMEI	359538030656884

Refresh

- Click **Refresh** to refresh the information.

#### Check the 3G/4G connection status.

- On the main page of the ZXHN H3601, select **Internet > Status > 3G/4G > 3G/4G Connection Status** to go to the **3G/4G Connection Status** page, see [Figure 5-4](#).

**Figure 5-4 3G/4G Connection Status**

▼ 3G/4G Connection Status

Connection Name	3G
PDP Type	IP
APN	3gnet
Dial Number	*99#
NAT	On
IP Address	10.13.241.4/255.255.255.255
DNS	58.240.57.33/221.6.4.66/0.0.0.0
IPv4 Connection Status	Connected
Disconnect Reason	None
IPv4 Online Duration	0 h 2 min 51 s

Refresh

- Click **Refresh** to refresh the information.

## 5.2 Configure the WAN

### 5.2.1 Configure the Ethernet Connection

This procedure describes how to configure the Ethernet on the network side, so that user services can be connected to the external network.

The ZXHN H3601 supports Route-based and Bridge-based WAN connections.

- Routing connection
- Bridge-based connection

## Steps

1. On the main page of the ZXHN H3601, select **Internet > WAN > Ethernet** to the **Ethernet Connection** page, see [Figure 5-5](#).

**Figure 5-5 Ethernet Connection page**

### ▼ Ethernet Connection

The screenshot displays the 'New Item' configuration window for an Ethernet connection. The form includes the following fields and options:

- Connection Name:** A text input field.
- Type:** A dropdown menu with 'Routing' selected.
- Service List:** Three checkboxes for 'INTERNET', 'TR069', and 'IPTV', all of which are checked.
- MTU:** A text input field containing the value '1492'.
- Link Type:** A dropdown menu with 'PPP' selected.
- PPP Transfer Type:** A dropdown menu with 'PPPoE' selected.
- PPP Section:** A shaded area containing 'Username' and 'Password' text input fields.
- IP Version:** A dropdown menu with 'IPv4' selected.
- VLAN:** Radio buttons for 'On' and 'Off', with 'Off' being the selected option.

At the bottom right of the form are 'Apply' and 'Cancel' buttons. At the bottom left is a '+ Create New Item' button.

[Table 5-1](#) lists the new item parameters.

**Table 5-1 Parameter Descriptions for the DSL**

Parameter	Description
Connection Name	Name of the connection.
Type	The connection type includes Routing and Bridge Connection. In this case, Routing is selected.
Service List	Options: INTERNET, TR069, IPTV. This parameter must be consistent with service configuration. For example, if <b>INTERNET</b> is selected, it indicates that the WAN connection supports the Internet access service only. If <b>TR069</b> is selected, it indicates that the WAN connection supports remote management.
MTU	Define the maximum transfer unit. In this case, default value is 1492.
Link Type	There are two link types: PPP and IP.



Parameter	Description
PPP Transfer Type	In this case, default value is PPPoE.
<b>PPP</b>	
Username/Password	PPPoE user name and password. They are provided by the ISP.
IP Version	The IP version includes: IPv4 and IPv6 IPv4/v6 In this case, IPv4 is selected.
<b>IPv4</b>	
IP Type	By default, it is set to DHCP. Options: <ul style="list-style-type: none"> <li>● DHCP: The DHCP server automatically allocates a dynamic IP address to the device.</li> <li>● Static: You need to specify a static IP address for the device.</li> </ul>
IP Address	IP Address of ZXHN H3601.
Subnet Mask	Subnet mask of ZXHN H3601.
Gateway	It is usually the IP address of the ZXHN H3601 by default.
DNS1-DNS3	IP address of the DNS server for static connections. You can set up to three IP addresses for the server. These IP addresses are provided by the ISP.
NAT	Enable or disable the NAT function.
<b>IPv6</b>	
IPv6 Info Acquire Mode	Specifies how to acquire IPv6 information for the WAN connection. It is valid only if the WAN connection supports IPv6. The options are: <ul style="list-style-type: none"> <li>● Manual :You need to set the global address, gateway, and DNS acquisition modes.</li> <li>● Auto :The global address, gateway, and DNS acquisition modes are automatically configured.</li> </ul>
Request PD	By default, the On button is selected.
Unnumbered Mode	By default, the On button is not selected. If it is selected, Specifies how to acquire the global IPv6 address.
GUA Allowed From	Specifies how to acquire the global IPv6 address. It is valid only when the IPv6 Info Get Mode parameter is set to be Manual Mode. Options: <ul style="list-style-type: none"> <li>● DHCPv6: The device acquires a global address through DHCPv6. If no option is selected, it indicates that no address acquisition mode is configured.</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>● PD: You need to set a static IPv6 address.</li> <li>● SLAAC: The device generates a global address in accordance with the RA packets from the upper-layer server.</li> </ul>
GUA	Mode of obtaining global address.
Gateway	It is usually the IPv6 address of the ZXHN H3601 device by default.
PD	Prefix Delegation.
DNS1–DNS3	IPv6 address of the DNS server for static connections. You can set up to three IPv6 addresses for the server. These IPv6 addresses are provided by the ISP.
VLAN	Specifies whether to carry a VLAN tag in the packets sent over the WAN connection. By default, <b>On</b> button is not selected. If it is selected, a VLAN tag is carried in the packets sent over the WAN connection, and the VLAN ID must be set.
VLAN ID	Identifies a VLAN. Range: 0–4094. To ensure normal service operation, the <b>VLAN ID</b> must be the same as that set in upper-layer MDU/DSLAM configuration.

2. Click **Apply** button to apply the changes.


## 5.2.2 Configure the 3G/4G

A Dongle device can be connected to ZXHN H3601 through a USB interface. If the Dongle has a 3G/4G(SIM) card inserted, the ZXHN H3601 can access the Internet through the Dongle device.

This page provides the parameters of the 3G/4G connection configuration function.

[Table 5-2](#) lists the 3G/4G process of configuring the WAN connection.

**Table 5-2 3G/4G Configuration Process**

Steps	Operations	Instructions
1	Insert 3G/4G device.	Null.
2	Check the 3G/4G device status.	The signal strength can verify whether the network card is plugged.
3	Create a 3G/4G WAN connection.	Click  <a href="#">Create New Item</a> on the page, and create a new 3G/4G connection.
4	Check the 3G/4G connection status.	The IP address getting from carries can verify that the 3 G/4G WAN Connection based on IPv4 was completed successfully.

**Note**

What to do when 3G/4G device is not ready?

1. Check whether the dongle is plugged in.
2. If the device is already plugged in, please check whether the USB is contacted well.
3. If the device is still unrecognized, maybe it has been damaged. Please replace the device.

**Steps**

1. Insert 3G/4G device.
2. On the main page of the ZXHN H3601, select **Internet > WAN > 3G/4G > Mobile Network** to the **Mobile Network** page. The signal strength can verify the network card is plugged, see [Figure 5-6](#).

**Figure 5-6 Mobile Network**

▼ Mobile Network

Signal Strength	
Service Provider(MCC/MNC)	
Network Mode	
IMEI	355434049347323
Alarm	SIM Card PIN Needed

Refresh

3. Click **Refresh** to refresh the information.
4. On the main page of the ZXHN H3601, select **Internet > WAN > 3G/4G** to the **3G/4G Connection** page.

[Table 5-3](#) lists the New Item parameter. After the setup is complete, you can see the page , see [Figure 5-7](#).

**Table 5-3 New 3G/4G Connection parameters**

Parameter	Description
Connection Name	Name the 3G/4G connection. For example "3G/4G".
PDP Type	There are two PDP types: <ul style="list-style-type: none"> <li>● IP</li> <li>● PPP</li> </ul>
APN	Set the communication standard of the access network to be used.

Parameter	Description
	For example "3G/4Gnet".
Dial Number	Dial Number. Different communication standards have different dial numbers. For example "***99#".
MTU	Define the maximum transfer unit.
Username/Password	The Username/Password of new 3G/4G connection.
Authentication Type	There are three authentication types: <ul style="list-style-type: none"> <li>• Auto</li> <li>• PAP</li> <li>• CHAP</li> </ul>
Connection Mode	There are two connection modes: <ul style="list-style-type: none"> <li>• Always On</li> <li>• On Demand</li> </ul>
Auto-disconnected without traffic	Setting this parameter when <b>Connection Mode</b> is <b>On Demand</b> .
NAT Switch	Select on/off NAT switch function.

Figure 5-7 New 3G/4G Connection

**New Item** [X]

Connection Name:

PDP Type: ☒ IP ☐ PPP

APN:

Dial Number:

MTU:

Username:

Password:

Authentication Type:  ▼

Connection Mode:  ▼

NAT Switch: ☒ On ☐ Off

[Apply] [Cancel]

+ Create New Item

- Click **Apply** button to apply the changes.
- On the main page of the ZXHN H3601, select **Internet > Status > 3G/4G** to the **3G/4G Connection Status** page, see [Figure 5-8](#).

**Figure 5-8 3G/4G Connection Status**

▼ 3G/4G Connection Status

Connection Name	3G
PDP Type	IP
APN	3gnet
Dial Number	*99#
NAT Switch	On
IP Address	10.13.241.4/255.255.255.255
DNS	58.240.57.33/221.6.4.66/0.0.0.0
Connection Status	Connected
Disconnect Reason	None
Online Time	0 h 2 min 55 s

Refresh

7. Click **Refresh** to refresh the information.

## 5.3 Configure the QoS

### 5.3.1 Configure the QoS Global Parameters

This page provides the function of [QoS](#) switch and other global parameters configuration. Packets that match no classification rules will be processed according to the default policy showed in this page.

#### Steps

1. On the main page of the ZXHN H3601, select **Internet > QoS > QoS Global Configuration** to the **QoS Global Configuration** page, see [Figure 5-9](#).

**Figure 5-9 QoS Global Configuration page**

▼ QoS Global Configuration

QoS Switch

☐ On ☒ Off

Apply

Cancel

2. Set radiobox **On** to enable QoS function.
3. Click **Apply** button to apply the changes.

### 5.3.2 Configure the QoS Classification

This page provides the parameters of QoS classification configuration features.

Steps

1. On the main page of the ZXHN H3601, select **Internet > QoS > Classification** to the **Classification** page.
2. Click to create new QoS classification, see [Figure 5-10](#).

Figure 5-10 New QoS Classification Page

New Item

☐ On ☒ Off

Name

Classification Priority

Packets Classification Criterion

All Interface

☐ On ☒ Off

Ingress

LAN

Source MAC Address

00 : 00 : 00 : 00 : 00 : 00

Select from the associated devices

Destination MAC Address

00 : 00 : 00 : 00 : 00 : 00

Select from the associated devices

802.1p

Unconcerned

VLAN ID

Level 2 Protocol

Unconcerned

Source IP

Destination IP

DSCP

Level 3 Protocol

Unconcerned

Packets Classification Result

802.1p Re-marking

No Change (-1)

DSCP Re-marking

No Change (-1)

Queue Priority

Apply

Cancel

Table 5-4 lists the QoS classification configuration parameters.

Table 5-4 Parameter Descriptions for the QoS Classification

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the function of classification.
Name	To create a QoS classification, enter the name of the classification.
Classification Priority	It can be modified by ISP.

Parameter	Description
<b>Packets Classification Criterion</b>	
All Interface	Set radiobox <b>On</b> to enable all Interface.
Ingress	If setting radiobox <b>Off</b> to disable all Interface, specify the data traffic direction.
Source MAC Address	Source host MAC address.
Destination MAC Address	Destination host MAC address.
802.1p	Specify the 802.1p value to modify the service priority.
VLAN ID	Identifies a VLAN. Range: 0–4094. To ensure normal service operation, the <b>VLAN ID</b> must be the same as that set in upper-layer configuration.
Level 2 Protocol	The level 2 protocol includes: Unconcerned, IPv4, IPv6, <b>ARP</b> and <b>PPPoE</b> .
Source IP	Source host IP address.
Destination IP	Destination host IP address.
<b>DSCP</b>	DSCP value.
Level 3 Protocol	The Level 3 Protocol includes: Unconcerned, <b>TCP</b> , <b>UDP</b> and <b>ICMP</b> .
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
TCP ACK	Set radiobox <b>On</b> to enable the function of TCP ACK.
<b>Packets Classification Result</b>	
802.1p Re-marking	802.1p identifier value.
DSCP Re-marking	DSCP identifier.
Queue Priority	Range:1-8.

3. Click **Apply** button to apply the changes.

## 5.4 Configure the Security

### 5.4.1 Configure the Firewall Level

The section describes how to configure firewall level.

## Steps

### Firewall

1. On the main page of the ZXHN H3601, select **Internet > Security > Firewall** to the **Firewall** page, see [Figure 5-11](#).

**Figure 5-11 Firewall Page**

▼ Firewall

[What should be noticed when configuring the firewall level?](#)

Firewall Level

☐ High

☒ Middle ( Recommended )

☐ Low

Apply

Cancel

2. Set the parameters. For a description of the parameters, refer to [Table 5-5](#).

**Table 5-5 Firewall Parameter Descriptions**

Parameter	Description
Enable	To enable the firewall level to be configured, select this check box.
Firewall Level	<ul style="list-style-type: none"><li>● High: allows legal access from the WAN but forbids Internet devices from sending ping packets to the WAN interface of the ZXHN H3601.</li><li>● Middle(Recommended): allows legal access from the WAN and blocks dangerous data from the Internet.</li><li>● Low: allows legal access from the WAN and allows Internet devices to send ping packets to the WAN interface of the ZXHN H3601.</li></ul>

3. Click **Apply** button to apply the changes.

### Anti-DoS Attack

1. On the main page of the ZXHN H3601, select **Internet > Security > Firewall** to the **Anti-DoS Attack** page, see [Figure 5-12](#).



**Figure 5-12 Anti-DoS Attack Page**

▼ Anti-DoS Attack

---

▼ Anti-PortScan

**i** "Threshold" means the maximum number of TCP or UDP connections from one host in WAN side to CPE itself every 3 seconds.

Enable ☒

Threshold

- Set the parameters. For a description of the parameters, refer to [Table 5-5](#).

**Table 5-6 Anti-DoS Attack Parameter Descriptions**

Parameter	Description
Enable	To enable the Anti-PortScan to be configured, select this check box.
Threshold	<b>Threshold</b> means the maximum number of TCP or UDP connections from one host in WAN side to CPE itself every 3 seconds.

- Click **Apply** button to apply the changes.

## 5.4.2 Configure the Filter Criteria

The section describes how to configure filter criteria.

### Steps

#### Filter Switch and Mode Configuration

- On the main page of the ZXHN H3601, select **Internet > Security > Filter Criteria** to the **Filter Criteria** page.
- Click **Filter Switch and Mode Configuration** to the configuration page, see [Figure 5-13](#).

**Figure 5-13 Filter Switch and Mode Configuration Page**

▼ Filter Switch and Mode Configuration

---

URL Filter ☐ On ☒ Off

Mode

- Configure filter switch and mode configuration parameters, see [Table 5-7](#).

**Table 5-7 Parameter Descriptions for the Filter Switch and Mode Configuration**

Parameter	Description
URL Filter	Set radiobox <b>On</b> to enable the URL filter function.
Mode	<p>Enable the URL filter function.</p> <p>There are two modes:</p> <ul style="list-style-type: none"> <li>● Black List Addresses in the <b>URL Filter</b> list are not allowed to access.</li> <li>● White List Only addresses in the <b>URL Filter</b> list can be accessed.</li> </ul>

- Click **Apply** button to apply the changes.

### URL Filter

- Click **URL Filter** to open **URL Filter** page, see [Figure 5-14](#).

**Figure 5-14 URL Filter Page**

▼ URL Filter

---

▼ New Item

Name

URL

Apply

Cancel

+

Create New Item

- [Table 5-8](#) lists the URL filter parameters.

**Table 5-8 Parameter Descriptions for the URL Filter**

Parameter	Description
Name	The name of the URL filter.
URL	The URL address.

- Click **Apply** button to apply the changes.

### IP Filter

- Click **IP Filter** to open the IP filter page, see [Figure 5-15](#).

Figure 5-15 IP Filter Page

## ▼ IP Filter

[What should be noticed when configuring Firewall IP Filter?](#)

The screenshot shows the 'New Item' configuration window for an IP Filter. At the top, there are radio buttons for 'On' and 'Off', with 'Off' selected. The form contains the following fields:

- Name:** A text input field.
- Target:** Radio buttons for 'Accept' (selected) and 'Drop'.
- Rule Priority:** A text input field with the value '1'.
- IP Version:** A dropdown menu with 'Any' selected.
- Source IP:** A text input field with a small icon to its right.
- Destination IP:** A text input field with a small icon to its right.
- Protocol:** A dropdown menu with 'Any' selected.
- Ingress:** A dropdown menu with 'Any' selected.
- Egress:** A dropdown menu with 'Any' selected.
- DSCP:** A text input field.

At the bottom right are 'Apply' and 'Cancel' buttons. At the bottom left is a '+ Create New Item' button.

2. Table 5-9 lists the IPv4 filter parameters.

Table 5-9 Parameter Descriptions for the IPv4 Filter

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the function of IP filter.
Name	Name of the IP filter item. The name must be specified.
Target	Specify to discard or permit the data packages.
Rule Priority	Specify the value to modify the service priority.
IP Version	The IP version includes: Any, IPv4 , IPv6.
Source IP/Destination IP	Source/Destination destination IP address.
Protocol	Select the protocol that needs to filter packets. By default, it is Any.
Ingress	Specify the data traffic direction. The Ingress option and egress option cannot be the same. <ul style="list-style-type: none"> <li>● If the ingress is LAN, the egress should be a WAN or 3G connection. The data traffic direction is upstream.</li> <li>● If the ingress is a WAN or 3G connection, the egress should be the LAN. The data traffic direction is downstream.</li> </ul>

Parameter	Description
Egress	Specify the data traffic direction. The Ingress option and egress option cannot be the same. <ul style="list-style-type: none"> <li>● If the ingress is LAN, the egress should be a WAN or 3G connection. The data traffic direction is upstream.</li> <li>● If the ingress is a WAN or 3G connection, the egress should be the LAN. The data traffic direction is downstream.</li> </ul>
DSCP	A DSCP is specified for the TOS byte in the IP header of each packet to indicate the priority. Range: 0–63.

3. Click **Apply** button to apply the changes.

### 5.4.3 Configure the Local Service Control

The section describes how to configure local service control.

#### Steps

#### Service Control-IPv4

1. On the main page of the ZXHN H3601, select **Internet > Security > Local Service Control** to the **Local Service Control** page.
2. Click **Service Control-IPv4** to open **Service Control-IPv4** page, see [Figure 5-16](#).

**Figure 5-16 Service Control-IPv4 Page**

#### ▼ Service Control - IPv4

1 ☒ On ☐ Off

▼ New Item ☐ On ☒ Off

Name

Target ☒ Accept ☐ Drop

Ingress

IP Range     ~

Service Type ☐ HTTP ☐ FTP ☐ TELNET ☐ HTTPS ☐ PING

3. Configure the service control-IPv4 parameters.

[Table 5-10](#) lists the local service control-IPv4 parameters.

**Table 5-10 Parameter Descriptions for the Service Control-IPv4**

Parameter	Description
On/Off	Click On to enable the function. Click Off to disable the function.
Name	Name of the Service Control item. The name must be specified.
Target	Specify to discard or permit the data packages.
Ingress	Specify the data stream inbound direction, and this parameter must be specified. <ul style="list-style-type: none"> <li>● If the Ingress is WAN_All, all the WAN connection can access ZXHN H3601.</li> <li>● If the Ingress is LAN, the LAN side can access ZXHN H3601.</li> </ul>
IP Range	The IP address segment that needs to be filtered. When the IP segment is null, it refers to all the IP addresses.
Service Type	Specify the service that is permitted or denied to access.

- Click **Apply** button to apply the changes.

### Service Control-IPv6

- Click **Service Control-IPv6** to open **Service Control-IPv6** page, see [Figure 5-17](#).

**Figure 5-17 Service Control-IPv6 Page**

▼ Service Control - IPv6

---

▼ New Item

☐ On
☒ Off

Name

Target

☒ Accept
☐ Drop

Ingress

Auto ▼

Prefix

/

Service Type

☐ HTTP
☐ FTP
☐ TELNET
☐ HTTPS
☐ PING

Apply

Cancel

+

 Create New Item

- Configure the service control-IPv6 parameters.

[Table 5-11](#) lists the local service control-IPv6 parameters.

**Table 5-11 Parameter Descriptions for the service control-IPv6**

Parameter	Description
On/Off	Click On to enable the function.

Parameter	Description
	Click Off to disable the function.
Name	Name of the Service Control item. The name must be specified.
Target	Specify to discard or permit the data packages.
Ingress	Specify the data stream inbound direction, and this parameter must be specified. <ul style="list-style-type: none"> <li>If the Ingress is WAN_All, all the WAN connection can access ZXHN H3601.</li> <li>If the Ingress is LAN, the LAN side can access ZXHN H3601.</li> </ul>
Prefix	IPv6 address prefix.
Service Type	Type Specify the service that is permitted or denied to access.

- Click **Apply** button to apply the changes.

### Remote Service Port Control-IPv4

- Click **Remote Service Port Control - IPv4** to open **Remote Service Port Control - IPv4** page, see [Figure 5-18](#).

**Figure 5-18 Remote Service Port Control - IPv4 Page**

#### ▼ Remote Service Port Control - IPv4

The screenshot shows a configuration page titled 'Remote Service Port Control - IPv4'. It contains four rows of configuration items, each with a label and a text input field:

- HTTP: 80
- FTP: 21
- TELNET: 23
- HTTPS: 443

At the bottom right of the form, there are two buttons: 'Apply' and 'Cancel'.

- Configure the remote service port control - IPv4 parameters.  
[Table 5-12](#) lists the remote service port control - IPv4 parameters.

**Table 5-12 Parameter Descriptions for the Remote Service Port Control - IPv4**

Parameter	Description
HTTP	The remote service port control of HTTP.
FTP	The remote service port control of FTP.
TELNET	The remote service port control of TELNET.
HTTPS	The remote service port control of HTTPS.

3. Click **Apply** button to apply the changes.

## 5.4.4 Configure the ALG

The section describes how to configure [ALG](#). **ALG** provides the relevant parameters of security configuration function.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Security > ALG** to the **ALG** page, see [Figure 5-19](#).

**Figure 5-19 ALG Configuration Page**

▼ ALG

FTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
H323 ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
PPTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
RTSP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
SIP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off
TFTP ALG	<input checked="" type="radio"/> On <input type="radio"/> Off

[All On](#) | [All Off](#) Apply Cancel

2. Select the [ALG](#) services.
3. Click **Apply** button to apply the changes.



### Note

- Click **All On** to select all [ALG](#) services.
- Click **All Off** to cancel all [ALG](#) services.

## 5.4.5 Configure the DMZ

The section describes how to configure [DMZ](#). **DMZ** provides the parameters of DMZ configuration features.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Security > DMZ** to the **DMZ** page, see [Figure 5-20](#).

**Figure 5-20 DMZ Configuration Page**

▼ DMZ

DMZ

☐ On ☒ Off

LAN Host

Apply

Cancel

Table 5-13 lists the DMZ parameters.

**Table 5-13 Parameter Descriptions for the DMZ**

Parameter	Description
DMZ Switch	Enable the <b>DMZ</b> host function.
LAN Host	The IP address or the MAC address of the computer at the LAN side.

2. Click **Apply** button to apply the changes.

## 5.4.6 Configure the Port Forwarding

This procedure introduces how to configure Port Forwarding so that a computer from the external network can access the LAN-side server through the WAN connection. Port Forwarding provides the parameters of Port Forwarding configuration features.

If you have local servers for different services and you want to make them publicly accessible, you need to specify the port forwarding policy. With **NAT** applied, it translates the internal IP addresses of these servers to a single IP address that is unique on the Internet.

To the Internet users, all virtual servers on your LAN have the same IP Address. This IP Address is allocated by your **ISP**. This address should be static, rather than dynamic, to make it easier for Internet users to connect to your servers. However, you can use dynamic **DNS** feature to allow users to connect to your virtual servers by using a URL, instead of an IP address.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Security > Port Forwarding** to the **Port Forwarding** page, see [Figure 5-21](#).



**Figure 5-21 Port Forwarding Configuration Page**

## ▼ Port Forwarding

[What should be noticed when configuring port forwarding?](#)

New Item ☐ On ☒ Off

Name

Protocol

WAN Host IP Address     ~

LAN Host

WAN Port  ~

LAN Host Port  ~

2. Configure the Port Forwarding parameters.

[Table 5-14](#) lists the Port Forwarding settings parameters.

**Table 5-14 Parameter Descriptions for the Port Forwarding**

Parameter	Description
On/Off	Set radiobox <b>On</b> to enable the port forwarding function.
Name	Virtual host name, which cannot be null.
Protocol	Protocol name, including TCP, UDP, TCP AND UDP. The default protocol is TCP.
WAN Host IP Address	IP address segment of the WAN-side hosts.
LAN Host	IP address of the LAN-side host.
WAN Port	Port segment of the WAN-side hosts.
LAN Host Port	Port number range of the LAN-side host. Range: 1-65535.

3. Click **Apply** button to apply the changes.

## 5.5 Configure the Parental Controls

The section describes how to configure parental controls.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Parental Controls** to the **Parental Controls** page, see [Figure 5-22](#).

**Figure 5-22 Parental Controls**

▼ Parental Controls

---

New Item

☐ On
 ☒ Off

Name

User Identity

:  :  :  :  :

Select from the associated devices

Time Policy

☐ Everyday
   
☐ Sun. ☐ Mon. ☐ Tues. ☐ Wed. ☐ Thur. ☐ Fri. ☐ Sat.

Duration

00 ▾ h 00 ▾ min ~ 23 ▾ h 59 ▾ min All Day

Action

Ban Internet Access ▾

Apply

Cancel

+

 Create New Item

- Configure the parental controls parameters.

Table 5-15 lists the parental controls parameters.

**Table 5-15 Parental Controls Parameters**

Parameter	Description
On/Off	Click <b>On</b> to enable the parental controls function.
Name	The name of parental control.
User Identity	Configure the user information according to the IP address or MAC address.  If the <b>All user</b> option is selected, all the users that use the ZXHN H3601 device are included.
Days	Specify the days when the parent control settings are applied.
Duration	Specify the time when the parent control settings are applied.
Action	The device supports: <ul style="list-style-type: none"> <li>● Ban Internet Access</li> <li>● URL Black List</li> <li>● URL White List</li> </ul>

- Click **Apply** button to apply the changes.

## 5.6 Configure the DDNS

The section describes how to configure [DDNS](#). **DDNS** provides the parameters of DDNS configuration function.

## Steps

1. On the main page of the ZXHN H3601, select **Internet > DDNS** to the **DDNS** page, see [Figure 5-23](#).

**Figure 5-23 DDNS Configuration Page**

▼ DDNS

---

Provider	<input type="text" value="DynDNS"/>
DDNS	<input type="radio"/> On <input checked="" type="radio"/> Off
Provider URL	<input type="text" value="http://www.dyndns.com"/>
Username	<input type="text"/>
Password	<input type="password" value="*****"/>
Host Name	<input type="text"/>

2. Configure the DDNS parameters.

[Table 5-16](#) lists the DDNS parameters.

**Table 5-16 Parameter Descriptions for the DDNS**

Parameter	Description
Provider	Supported provider. Options: DynDNS, DtDNS, No-IP, easyDNS, freedns and TZO. If the DtDNS is selected, the <b>WAN Connection</b> should be configured.
DDNS	DDNS Switch. Click On to enable the DDNS function.
Provider URL	The URL of provider. If the DynDNS HTTP is used, the URL is <i>http://www.dyndns.com</i> . If the DtDNS HTTP is used, the URL is <i>http://www.dtdns.org</i> . If the No-IP HTTP is used, the URL is <i>http://www.no-ip.com</i> . If the easyDNS HTTP is used, the URL is <i>http://www.easyns.com</i> . If the freedns HTTP is used, the URL is <i>http://freedns.afraid.org</i> . If the TZO HTTP is used, the URL is <i>http://www.tzo.com</i> .
Username	DDNS server user name.
Password	DDNS server password.
Host name	Host name corresponding to the user.

3. Click **Apply** button to apply the changes.

# 5.7 Configure the SNTP

The section describes how to configure [SNTP](#). **SNTP** provides the parameters of SNTP configuration features.

## Steps

1. On the main page of the ZXHN H3601, select **Internet > SNTP** to the **SNTP** page, see [Figure 5-24](#).

**Figure 5-24 SNTP Configuration Page**

▼ SNTP

Current Date and Time: 1970-01-02T01:16:37

Time Zone: (GMT) Greenwich Mean Time: Dublin ▼

NTP Server 1:

NTP Server 2:

NTP Server 3:

NTP Server 4:

NTP Server 5:

Poll Interval: 86400 s

Automatically Adjust Clock For Daylight: ☒ On ☐ Off

Saving Time:

DSCP:

Apply Cancel

2. Configure the SNTP parameters.

[Table 5-17](#) lists the SNTP parameters.

**Table 5-17 Parameter Descriptions for the SNTP**

Parameter	Description
Time Zone	Time zone.
NTP Server1-NTP Server5	IP address of the primary/secondary/third/fourth/fifth NTP server.
Poll Interval	Interval of time synchronization. Unit: second.
Automatically Adjust Clock For Daylight	Enable or disable the automatically adjust clock for daylight function.
DSCP	To ensure the QoS of communication, DSCP ( Differentiated Services Code Point) encodes the 8 flag bytes in the IP header of data packets to classify service

Parameter	Description
	types and distinguish service priorities. The value range of DSCP is 0~63 and each DSCP code value is mapped to a defined PHB (Per-Hop-Behavior) code.

3. Click **Apply** button to apply the changes.

## 5.8 Configure the Port Binding

The section describes how to configure Port Binding. **Port Binding** provides the parameters of Port Binding configuration features.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Port Binding** to the **Port Binding** page, see [Figure 5-25](#).

**Figure 5-25 Port Binding Configuration Page**

▼ Port Binding

---

▼ Route\_3G

<input type="checkbox"/> LAN1	<input type="checkbox"/> LAN2	<input type="checkbox"/> LAN3	
<input type="checkbox"/> SSID1	<input type="checkbox"/> SSID2	<input type="checkbox"/> SSID3	<input type="checkbox"/> SSID4
<input type="checkbox"/> SSID5	<input type="checkbox"/> SSID6	<input type="checkbox"/> SSID7	<input type="checkbox"/> SSID8

All On | All Off

Apply Cancel

▶ test

2. Click **Refresh** button to get the information.

## 5.9 Configure the Multicast

### 5.9.1 Configure the IGMP

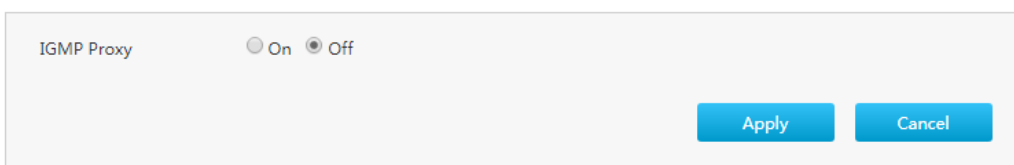
The section describes how to configure [IGMP](#). **IGMP** provides the parameters of IGMP configuration features.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Multicast > IGMP** to the **IGMP** page, see [Figure 5-26](#).

**Figure 5-26 IGMP Configuration Page**

## ▼ IGMP Mode

A screenshot of the IGMP configuration page. It features a section titled 'IGMP Mode' with a sub-label 'IGMP Proxy'. Below this, there are two radio buttons: 'On' and 'Off'. The 'Off' radio button is selected. At the bottom right of the configuration area, there are two blue buttons: 'Apply' and 'Cancel'.

2. Enable the IGMP functions, see [Table 5-18](#).

**Table 5-18 Parameter Descriptions for the IGMP**

Parameter	Description
IGMP Proxy	The system serves as a proxy server to forward IGMP packets from the MDU/DSLAM to other devices.

3. Click **Apply** button to apply the changes.

## 5.9.2 Configure the MLD

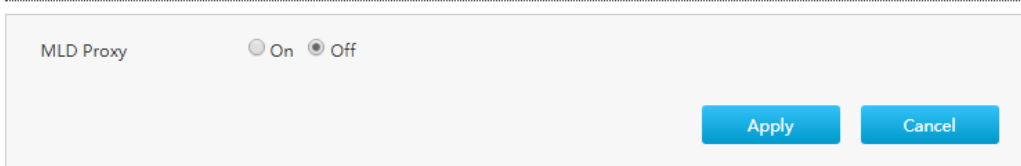
The section describes how to configure [MLD](#). **MLD** provides the parameters of MLD configuration features.

### Steps

1. On the main page of the ZXHN H3601, select **Internet > Multicast > MLD** to the **MLD** page, see [Figure 5-27](#).

**Figure 5-27 MLD Configuration Page**

## ▼ MLD Mode

A screenshot of the MLD configuration page. It features a section titled 'MLD Mode' with a sub-label 'MLD Proxy'. Below this, there are two radio buttons: 'On' and 'Off'. The 'Off' radio button is selected. At the bottom right of the configuration area, there are two blue buttons: 'Apply' and 'Cancel'.

2. Enable the MLD functions, see [Table 5-19](#).

**Table 5-19 Parameter Descriptions for the MLD**

Parameter	Description
IGMP Proxy	The system serves as a proxy server to forward MLD packets from the MDU/DSLAM to other devices.

3. Click **Apply** button to apply the changes.

# Chapter 6

## Configure the Local Network

---

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## 6.1 Check the Local Network Status

The section describes how to check the status of Local Network. The relevant information of Local Network status includes **LAN Status**, **WLAN Status**, **WLAN Client Status**, **LAN Client Status** and **USB Storage Status**. The relevant information of Local Network status is shown as below.

### Steps

1. On the main page of the ZXHN H3601, select **Local Network > Status** to the **Local Network Status** page, see [Figure 6-1](#).

Figure 6-1 Local Network Status Page

▶ WLAN Status

▶ LAN Status

▶ WLAN Client Status

▶ LAN Client Status

▶ USB Storage Status

2. Click **Refresh** to refresh the information.

6.2 Configure the WLAN

6.2.1 Configure the Basic Parameters of the WLAN

The section describes how to configure **WLAN** basic settings.

Steps

WLAN On/Off Configuration

1. On the main page of the ZXHN H3601, select **Local Network > WLAN > WLAN Basic** to the **WLAN Basic** page, see [Figure 6-2](#).

Figure 6-2 WLAN On/Off Configuration

▼ WLAN On/Off Configuration

WLAN (2.4GHz)

☒ On ☐ Off

WLAN (5GHz)

☒ On ☐ Off

Roaming Limit (2.4GHz)

(-80 - -40)

Roaming Limit (5GHz)

(-80 - -40)

Apply

Cancel

2. [Table 6-1](#) lists the WLAN on/off configuration parameters.

Table 6-1 WLAN On/Off Configuration parameters

Parameter	Description
WLAN (2.4GHz)	Click <b>On</b> to enable the 2.4GHz wireless function. Click <b>Off</b> to disable the 2.4GHz wireless function.



Parameter	Description
WLAN (5GHz)	Click <b>On</b> to enable the 5GHz wireless function. Click <b>Off</b> to disable the 5GHz wireless function.
Roaming Limit (2.4GHz)	The default value is recommended.
Roaming Limit (5GHz)	The default value is recommended.

- Click **Apply** button to apply the changes.

### WLAN Global Configuration

- Click **WLAN Global Configuration** to the configuration page, see [Figure 6-3](#).

**Figure 6-3 WLAN Global Configuration Page**

#### ▼ WLAN Global Configuration

The screenshot shows the 'WLAN Global Configuration' page with the '2.4GHz' tab selected. The configuration parameters are as follows:

Parameter	Value
Channel	1
Mode	Mixed (802.11b/g/n)
Band Width	20MHz
SGI	<input checked="" type="radio"/> On <input type="radio"/> Off
Beacon Interval	100 ms
Transmitting Power	100%

Buttons: Apply, Cancel

- [Table 6-2](#) lists the WLAN global configuration parameters.

**Table 6-2 Parameter Descriptions for WLAN Global Configuration**

Parameter	Description
Channel	Channel of the wireless network. A proper channel can be selected in accordance with the country code. Options: Auto, 1–13, default: 13. Specifies the channel used for communication between the AP and the wireless site, depending on the local circumstance.
Mode	Options: <ul style="list-style-type: none"> <li>● IEEE 802.11b Only</li> <li>● IEEE 802.11g Only</li> <li>● IEEE 802.11n Only</li> <li>● Mixed(802.11b/g)</li> <li>● Mixed(802.11g/n)</li> <li>● Mixed(802.11b/g/n)</li> <li>● Mixed(802.11b/g/n/ax)</li> </ul>

Parameter	Description
Band Width	Radio frequency bandwidth, including Auto, 20Mhz and 40Mhz.
SIG	Click <b>On</b> to enable <b>SIG</b> function. Click <b>Off</b> to disable <b>SIG</b> function.
Beacon Interval	Interval for transmitting beacon frames, default: 100 ms. Beacon frames are used for communicating with other AP devices or network control devices to announce the WLAN presence.
Transmitting Power	Level of radio signal transmitting power. A larger value indicates wider coverage. Options: <ul style="list-style-type: none"> <li>• 100%</li> <li>• 80%</li> <li>• 60%</li> <li>• 40%</li> <li>• 20%</li> </ul>

- Click **Apply** button to apply the changes.



#### Note

WLAN global configuration(5GHz) refers to WLAN global configuration(2.4GHz).

### Private WLAN SSID Configuration

- Click **Private WLAN SSID Configuration** to the configuration page, see [Figure 6-4](#).

**Figure 6-4 Private WLAN SSID Configuration Page**

#### ▼ WLAN SSID Configuration

▼ SSID1 (2.4GHz) ☒ On ☐ Off

SSID Name:

SSID Hide: ☐ On ☒ Off

Encryption Type:

WPA Passphrase:

☐ show password

Maximum Clients:

- [Table 6-3](#) lists the WLAN SSID configuration parameters.

**Table 6-3 Parameter Descriptions for the WLAN SSID Configuration**

Parameter	Description
SSID Name	The name of SSID.

Parameter	Description
SSID Hide	Set radiobox <b>On</b> to hide the SSID information to prevent illegal users.
Encryption Type	Select Encryption Type.
WPA Passphrase	Password to connect to the wireless network. The value range is 8–63.
Maximum Clients	Maximum number of users that can access the SSID. The value range is 1-32.

3. Click **Apply** button to apply the changes.

**Note**

Private WLAN SSID Configuration(5GHz) refers to Private WLAN SSID Configuration(2.4GHz). Guest WLAN SSID Configuration refers to Private WLAN SSID Configuration.

## 6.2.2 Configure the Advanced Parameters of the WLAN

**WLAN Advanced** provides the parameters of WLAN Advanced configuration features.

### Steps

#### Access Control-Mode Settings

1. On the main page of the ZXHN H3601, select **Local Network > WLAN > WLAN Advanced** to the **WLAN Advanced** page.
2. Click **Access Control-Mode Configuration** the configuration page, see [Figure 6-5](#).

**Figure 6-5 Access Control-Mode Configuration Page**

#### ▼ Access Control-Mode Configuration

SSID1	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID2	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID3	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID4	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID5	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID6	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID7	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List
SSID8	<input checked="" type="radio"/> No Filter	<input type="radio"/> Black List	<input type="radio"/> White List

3. Configure the access control-mode configuration parameters.

[Table 6-4](#) lists the access control-mode configuration parameters.

**Table 6-4 Access Control-Mode configuration parameters**

Parameter	Description
No Filter	No filter is to be applied (the default).
Black List	Deny LAN users to access specific address.
White List	Allow LAN users to access specific address.

4. Click **Apply** button to apply the changes.


### Access Control-Rule Configuration

1. Click **Access Control-Rule Configuration** to the configuration page, see [Figure 6-6](#).

**Figure 6-6 Access Control-Rule Settings**

▼ Access Control-Rule Configuration

[What should be noticed when configuring access control rules?](#)


▼ New Item 

Name

SSID  ▼

MAC Address  :  :  :  :  :

[Select from the associated devices](#)

 Create New Item

2. Configure the access control-rule configuration parameters. [Table 6-5](#) lists the access control-rule configuration parameters.

**Table 6-5 Access Control-Rule Configuration parameters**

Parameter	Description
Name	The name of Access Control Item.
SSID	SSID name corresponding to the wireless network that the rule is applied to. The default value is SSID1.
MAC Address	<p>The MAC address of the wireless device.</p> <p>We suggest to set the MAC addresses in access control list using a wireline connected device.</p> <p>Modifying the list using a wireless device may cause unexpected disconnection of the device used.</p>

3. Click **Apply** button to apply the changes.

## 6.3 Configure the LAN

### 6.3.1 Configure the LAN (IPv4)

The section describes how to configure LAN (IPv4).

The relevant information of Internet status includes **Allocated Address (DHCP)**, **DHCP Server**, **DHCP Binding** and **Port Control**.

#### Steps

##### Allocated Address(DHCP)

1. On the main page of the ZXHN H3601, select **Local Network > LAN > IPv4** to the **IPv4** page.
2. Click **Allocated Address (DHCP)** to the configuration, see [Figure 6-7](#).

**Figure 6-7 Allocated Address(DHCP) Page**

##### ▼ Allocated Address (DHCP)

Host Name	MAC Address	IP Address	Port	Remaining Lease
A23329746	dc:4a:3e:40:dc:cf	192.168.1.2	LAN1	22h 55min 24s

Refresh

3. Click **Refresh** to refresh the informations.

##### DHCP Server

1. Click **DHCP Server** to the configuration, see [Figure 6-8](#).

**Figure 6-8 DHCP Server(IPv4) Page**

## ▼ DHCP Server

DHCP Server ☒ On ☐ Off

LAN IP Address 192 . 168 . 1 . 1

Subnet Mask 255 . 255 . 255 . 0

DHCP Start IP Address 192 . 168 . 1 . 2

DHCP End IP Address 192 . 168 . 1 . 254

ISP DNS ☐ On ☒ Off

Primary DNS 192 . 168 . 1 . 1

Secondary DNS 0 . 0 . 0 . 0

Lease Time Mode Custom ▼

Custom Lease Time 86400 s

Apply Cancel

2. Configure the DHCP server parameters.

Table 6-6 lists the DHCP server parameters.

**Table 6-6 Parameter Descriptions for the DHCP Server**

Parameter	Description
DHCP Server	Select On to let the device work as a DHCP server and assign IP addresses to open the client PCs or wireless devices.
LAN IP Address	The IPv4 address of LAN.
Subnet Mask	Subnet mask of the device.
DHCP Start IP Address	The start IP address of the DHCP address pool.
DHCP End IP Address	The end IP address of the DHCP address pool.
ISP DNS	Select the On check box to let the Assign IspDNS work.
Primary DNS	IP address of the DNS server, provided by ISP.
Secondary DNS	IP address of the DNS server2, provided by the ISP.
Lease Time Mode	The mode of Lease Time.
Custom Lease Time	The time during which the client PCs use the IP address assigned by the DHCP server. After the lease time expires, the private IP address will be available for assigning to other network devices.

3. Click **Apply** button to apply the changes.

**DHCP binding**

1. Click **DHCP Binding** to the configuration, see [Figure 6-9](#).

**Figure 6-9 DHCP Binding Page**

▼ DHCP Binding

---

▼ New Item

Name

MAC Address

IP Address

Apply

Cancel

+

 Create New Item

2. Configure the DHCP Binding parameters.

[Table 6-7](#) lists the DHCP binding parameters.

**Table 6-7 Parameter Descriptions for the DHCP Binding**

Parameter	Description
Name	The name of the DHCP Binding.
MAC Address	The MAC address of the DHCP Binding.
IP Address	IP address of the DHCP Binding.

3. Click **Apply** button to apply the changes.

### Port Control

1. Click **DHCP Binding** to the configuration, see [Figure 6-10](#).

**Figure 6-10 Port Control**

▼ Port Control

LAN1	<input checked="" type="radio"/> On <input type="radio"/> Off
LAN2	<input checked="" type="radio"/> On <input type="radio"/> Off
LAN3	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID1	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID2	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID3	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID4	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID5	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID6	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID7	<input checked="" type="radio"/> On <input type="radio"/> Off
SSID8	<input checked="" type="radio"/> On <input type="radio"/> Off

[All On](#) | [All Off](#)

[Apply](#) [Cancel](#)

2. Configure the port control parameters.
  - Click **All On** to select all ports.
  - Click **All Off** to cancel all ports.
3. Click **Apply** button to apply the changes.

### 6.3.2 Configure the LAN (IPv6)

The procedure describes how to configure LAN (IPv6).

The relevant information of Internet status includes **Allocated Address (DHCPv6)**, **LAN Address Management**, **DHCPv6 Server**, **Static Prefix**, **Port Control** and **RA Service**.

#### Prerequisite

Before configuring the prefix delegation, make sure that the prefix delegation is enabled for the specified IPv6 WAN connection.

#### Steps


##### Check the allocated address (DHCPv6).

1. On the main page of the ZXHN H3601 device, select **Local Network > LAN > IPv4** to open the **Allocated Address (DHCP)** page, see [Figure 6-11](#).



**Figure 6-11 Allocated Address (DHCPv6) Page**

## ▼ Allocated Address (DHCPv6)

 There are no data now.

Refresh

2. Click **Refresh** to refresh the informations.

**Configure the LAN address.**

1. Click **LAN Address Management** to open the **LAN Address Management** page, see [Figure 6-12](#).

**Figure 6-12 LAN Address Management Page**

## ▼ LAN Address Management

LAN IPv6 Address

Apply

Cancel

2. Configure the LAN address parameters. [Table 6-8](#) describes the LAN address parameters.

**Table 6-8 Description of the LAN Address Parameters**

Parameter	Description
LAN IPv6 Address	The IPv6 address of LAN.

3. Click **Apply** button to apply the changes.

**Configure the static prefix.**

1. Click **Static Prefix** to open the **Static Prefix** page, see [Figure 6-13](#).

**Figure 6-13 Static Prefix Page**

## ▼ Static Prefix

## ▼ New Item


Name

Prefix

 / 64

Apply

Cancel

 Create New Item

2. Configure the static prefix parameters. [Table 6-9](#) describes the static prefix parameters.

**Table 6-9 Description of the Static Prefix Parameters**

Parameter	Description
Name	The name of the prefix.
Prefix	IPv6 address and prefix length. Only a GUA prefix is supported. Prefix length range: 64.

3. Click **Apply** button to apply the changes.

### Configure the DHCPv6 server.

1. Click **DHCPv6 Server** to open the **DHCPv6 Server** page, see [Figure 6-14](#).

**Figure 6-14 DHCPv6 Server Page**

▼ DHCPv6 Server

[What should be noticed when configuring DHCPv6 server?](#)

DHCPv6 Server

☒ On ☐ Off

DNS Delegate Type

☒ Auto ☐ Manual

DNS Address Specific

▼

DNS Refresh Time

86400 s

Prefix Delegate Type

Auto ▼

Apply

Cancel

2. Configure the DHCP server parameters. [Table 6-10](#) describes the static routing parameters.

**Table 6-10 Description of the DHCP Server Parameters**

Parameter	Description
DHCPv6 Server	Select <b>On</b> to let the device work as a DHCP server and assign IP addresses to the client PCs or wireless devices.
DNS Delegate Type	DNS Delegate Type: <ul style="list-style-type: none"> <li>● Auto: One DNS selected automatically from all the available DNS will be delegated.</li> <li>● Manual: One or more DNSs selected manually from all the DNSs configured before will be delegated.</li> </ul>
DNS Refresh Time	The time during which the client PCs use the IP addresses assigned by the DHCP server. After the lease time expires, the private IP address will be available for assigning to other network devices.

Parameter	Description
Prefix Delegate Type	Option: <ul style="list-style-type: none"> <li>● AutoSense: One prefix selected automatically from all the available prefixes will be delegated.</li> <li>● Manual: One or more prefixes selected manually from all the static prefixes configured before will be delegated.</li> <li>● Disabled: No prefix will be delegated.</li> </ul>

3. Click **Apply** button to apply the changes.

### Configure the RA service.

1. Click **RA Service** to open the **RA Service** page, see [Figure 6-15](#).

**Figure 6-15 RA Service Page**

▼ RA Service

[What should be noticed when configuring RA service?](#)

RA Service
Specify MTU
Preference
Minimum Retry Interval
Maximum Retry Interval
M
O
Prefix Delegate Type

☒ On ☐ Off  
☐ On ☒ Off  
Middle  
200 s  
600 s  
☐ On ☒ Off  
☒ On ☐ Off  
Auto

Apply
Cancel

2. Configure the [RA](#) service parameters. [Table 6-11](#) describes the RA service parameters.

**Table 6-11 Description of the RA Service Parameters**

Parameter	Description
RA Service	Select <b>On</b> to enable the RA service. Select <b>Off</b> to disable the RA service.
Specify MTU	If <b>On</b> button is selected, enter the MTU value.
Preference	By default, the preference is <b>Middle</b> .
<a href="#">MTU</a>	Define the maximum transfer unit.
Minimum Retry Interval/ Maximum Retry Interval	The minimum/maximum time allowed between two unsolicited multicast router advertisements sent from the interface.
M, O	M: managed address configuration.

Parameter	Description
	<p>O: other stateful configuration.</p> <p>If <b>On</b> button is selected, the value is 1. If <b>Off</b> button is selected, the value is 0.</p> <ul style="list-style-type: none"> <li>● M = 0 and O = 0: <b>SLAAC</b> is used for acquiring information. It is applicable to a network without the DHCPv6 architecture.</li> <li>● M = 1 and O = 1: DHCPv6 is used for acquiring the address and other configuration information.</li> <li>● M = 0 and O = 1: SLAAC is used for acquiring address information. DHCPv6 is used only for acquiring network parameter settings except the IP address.</li> <li>● M = 1 and O = 0: DHCPv6 is used only for acquiring the address information.</li> </ul>
Prefix Delegate Type	<p>Prefix Delegate Type:</p> <ul style="list-style-type: none"> <li>● AutoSense: One prefix selected automatically from all the available prefixes will be delegated.</li> <li>● Manual: One or more prefixes selected manually from all the static prefixes configured before will be delegated.</li> </ul>

3. Click **Apply** button to apply the changes.

### Configure the Port Control.

1. Click **Port Control** to open the **Port Control** page, see [Figure 6-16](#).

**Figure 6-16 Port Control Page**

▼ Port Control

LAN1	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
LAN2	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
LAN3	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID1	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID2	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID3	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID4	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID5	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID6	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID7	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA
SSID8	<input checked="" type="checkbox"/> DHCPv6	<input checked="" type="checkbox"/> RA

All On | All Off

Apply Cancel

2. To enable the DHCPv6 and RA function, select the corresponding LAN interface or SSID.

**Note**

- Click **All On** to select all IPv6 Service-Port control types.
- Click **All Off** to cancel all IPv6 Service-Port control types.

3. Click **Apply** button to apply the changes.

## 6.4 Configure the Route

### 6.4.1 Configure the Routing(IPv4)

The section describes how to configure routing(IPv4), which provides the parameters of route(IPv4) configuration features.

The relevant information of Internet status includes **Routing Table**, **Static Routing** and **Policy Routing**.

#### Prerequisite

Before configuring routing(IPv4), make sure that the IPv4 WAN connection is created.

#### Steps

##### Routing Table

1. On the main page of the ZXHN H3601, select **Local Network > Routing > IPv4** to the **Routing(IPv4)** page.
2. Click **Routing Table** to the configuration page, see [Figure 6-17](#).

**Figure 6-17 Routing Table Page**

##### ▼ Routing Table

Network Address	Subnet Mask	Gateway	Interface
192.168.1.0	255.255.255.0	0.0.0.0	LAN
192.168.168.0	255.255.255.128	0.0.0.0	LAN
192.168.168.128	255.255.255.128	0.0.0.0	LAN

[Refresh](#)

3. Click **Refresh** to refresh the information.

##### Static Routing

1. Click **Static Routing** to the configuration page, see [Figure 6-18](#).

**Figure 6-18 Static Routing Page**

▼ Static Routing

[What should be noticed when configuring static routing?](#)

▼ New Item

Name

Egress

Please select... ▼

Network Address

Subnet Mask

Gateway

Apply

Cancel

+

 Create New Item

2. Configure the static routing parameters. [Table 6-12](#) lists the static routing parameters.

**Table 6-12 Parameter Descriptions for the Static Routing**

Parameter	Description
Name	The name of static routing entry.
Egress	WAN connection for static routing.
Network Address	IPv4 address of the destination network.
Subnet Mask	Subnet mask of the destination network.
Gateway	The next-hop IPv4 address to the destination network.

3. Click **Apply** button to apply the changes.

## Policy Routing

1. Click **Policy Routing** to the configuration page, see [Figure 6-19](#).

**Figure 6-19 Policy Routing Page**

## ▼ Policy Routing

The screenshot shows a web interface for configuring Policy Routing. At the top, there is a dropdown menu labeled '▼ Policy Routing'. Below it is a 'New Item' form. The form contains the following fields:

- Name:** A text input field.
- Egress:** A dropdown menu with 'Please select...' as the current selection.
- Source IP Address:** Four input boxes for IP address octets.
- Source Mask:** Four input boxes for mask octets.
- Destination IP Address:** Four input boxes for IP address octets.
- Destination Mask:** Four input boxes for mask octets.
- Protocol:** A dropdown menu with 'Any' as the current selection.
- Source MAC Address:** Six input boxes for MAC address octets, separated by colons.

Below the Source MAC Address field, there is a blue link that says 'Select from the associated devices'. At the bottom right of the form are two buttons: 'Apply' and 'Cancel'. At the bottom left, there is a '+ Create New Item' link.

2. Configure the policy routing parameters. [Table 6-13](#) lists the policy routing parameters.

**Table 6-13 Parameter Descriptions for the Policy Routing**

Parameter	Description
Name	The name of Policy routing entry.
Egress	WAN connection for policy routing
Source IP Address	Source IPv4 address of the matching packets.
Source Mask	Source mask of the matching packets.
Destination IP Address	Destination IPv4 address of the matching packets.
Destination Mask	Destination mask of the matching packets.
Protocol	Matching IPv4 protocol. The ANY option means any IPv4 protocol.
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
Source MAC Address	MAC address of the source device that sends the matching packets.

3. Click **Apply** button to apply the changes.

## 6.4.2 Configure the Routing(IPv6)

The section describes how to configure Routing(IPv6).

The relevant information of Internet status includes **Routing Table**, **Static Routing** and **Policy Routing**.

### Prerequisite

Before configuring routing(IPv6), make sure that the IPv6 WAN connection is created.

### Steps

#### Routing Table

1. On the main page of the ZXHN H3601, select **Local Network > Routing > IPv6** to the **Routing(IPv6)** page.
2. Click **Routing Table** to the configuration page, see [Figure 6-20](#).

**Figure 6-20 Routing Table Page**

#### ▼ Routing Table

Prefix	Gateway	Interface
fe80::219:c6ff:fe50:7180/128	::	LAN
fe80::/64	::	LAN

Refresh

3. Click **Refresh** to refresh the information.

#### Static Routing

1. Click **Static Routing** to the configuration page, see [Figure 6-21](#).

**Figure 6-21 Static Routing(IPv6) Page**

#### ▼ Static Routing

[What should be noticed when configuring static routing?](#)

New Item

Name

Egress

Please select...

Prefix

Gateway

Apply

Cancel

Create New Item



2. Configure the static routing parameters. [Table 6-14](#) lists the static routing parameters.

**Table 6-14 Parameter Descriptions for the Static Routing**

Parameter	Description
Name	The name of static routing entry.
Egress	WAN connection for static routing.
Prefix	IPv6 address and prefix length. The value range is 1-128.
Gateway	The next-hop IP address to the destination network.

3. Click **Apply** button to apply the changes.

### Policy Routing

1. Click **Policy Routing** to the configuration page, see [Figure 6-22](#).

**Figure 6-22 Policy Routing(IPv6) Page**

▼ Policy Routing

New Item

Name

Egress

Please select...

Source IP Address

/ 128

Destination IP Address

/ 128

Protocol

Any

Source MAC Address

:

:

:

:

Select from the associated devices

Apply

Cancel

Create New Item

2. Configure the policy routing parameters. [Table 6-15](#) lists the policy routing parameters.

**Table 6-15 Parameter Descriptions for the Policy Routing**

Parameter	Description
Name	The name of Policy routing entry.
Egress	WAN connection for policy routing
Source IP Address	Source IPv6 address of the matching packets.

Parameter	Description
Destination IP Address	Destination IPv6 address of the matching packets.
Protocol	Matching IPv6 protocol. The ANY option means any IPv6 protocol.
Source Port	Source port number of the matching packets.
Destination Port	Destination port number of the matching packets.
Source MAC Address	MAC address of the source device that sends the matching packets.

- Click **Apply** button to apply the changes.

## 6.5 Configure the FTP Server Feature

This procedure describes how to enable the [FTP](#) feature of the ZXHN H3601 by configuring FTP parameters, including the username and password.

### Steps

- In the left navigation tree, click **Local Network > FTP**. The FTP Application page is displayed, see [Figure 6-23](#).

**Figure 6-23 FTP Page**

▼ FTP

Server

☐ On
☒ Off

Username

admin

Password

•••••

Apply

Cancel

- Set the parameters. For a description of the parameters, refer to [Table 6-16](#).

**Table 6-16 FTP Server Parameter Descriptions**

Parameter	Description
Server	Enable or disable the FTP server feature .
FTP Username/FTP Password	Username and password used to connect to the FTP server.Valid only if FTP security control is enabled.

- Click **On** to enable the FTP server feature ,and click **Apply** button to apply the changes.

## 6.6 Configure the UPnP

This page provides the parameters of [UPnP](#) configuration features.

### Steps

#### UPnP

1. On the main page of the ZXHN H3601, select **Local Network > UPnP** to the **UPnP**, see [Figure 6-24](#).

**Figure 6-24 UPnP Page**

▼ UPnP

UPnP

☐ On ☒ Off

Apply

Cancel

[Table 6-17](#) lists the UPnP parameters.

**Table 6-17 Parameter Descriptions for the UPnP**

Parameter	Description
UPnP	Enable or disable the UPnP function.

2. Click **Apply** button to apply the changes.

#### UPnP Portmap Table

1. Click **UPnP Portmap Table** to the information page, see [Figure 6-25](#).

**Figure 6-25 UPnP Portmap Table Page**

▼ UPnP Portmap Table

There are no data now.

Refresh

2. Click **Refresh** button to refresh the information.

## 6.7 Configure the DMS/DLNA

The section describes how to configure [DMS](#). **DMS** provides the parameters of DMS configuration features.

DMS is a multimedia server defined in [DLNA](#) protocol, which uses [UPnP](#) protocol to search and categorize the local media files or photos, and provide [VOD](#) services for the [DMP](#).

If the DMS function is enabled on the ZXHN H3601 device, any client that supports UPnP function can use the specified DMP (for example, windows media player) to watch the media files or photos stored in the USB storage device.

The version of the windows media player used for DMS function must be 11 or later, or the OS must be vista or Win 7. To enable the DMP function in OS of earlier version, special tools, such as Intel(R) Tool for UPnP(TM) Technology or Twonky Media Manager must be installed.

### Prerequisite

The USB device is connected to open the ZXHN H3601 device.

### Steps

1. On the main page of the ZXHN H3601, select **Local Network > DMS/DLNA** to open the **DMS/DLNA** page, see [Figure 6-26](#).

**Figure 6-26 DMS/DLNA**

▼ DMS/DLNA

DMS ☐ On ☒ Off

DMS Name

Library Rescan Method

Media Source1

Media Source2

Media Source3

Media Source4

2. Enable the DMS/DLNA function, and specify the path storing the media files. For a description of the parameters, refer to [Table 6-18](#).

**Table 6-18 Parameter Descriptions for the DMS/DLNA**

Parameter	Description
DMS	Click <b>On</b> to enable the DMS function. Click <b>Off</b> to disable the DMS function.
DMS Name	To create a DMS, enter the name of the DMS.
Library Rescan Method	Library rescan method that the device supports. Normally, it is set to Auto.

Parameter	Description
Media Source1– Media Source4	By default, the media source is <i>/mnt</i> , that is the root directory of the USB device. You can change the root directory to other directory of the USB storage device.

**Note**

By default, the media source is */mnt*, that is the root directory of the USB device. You can change the root directory to other directory of the USB storage device.

3. Click **Apply** button to apply the changes.

## 6.8 Configure the Samba Service

The procedure provides the parameters of samba configuration features.

### Steps

1. On the main page of the ZXHN H3601, select **Local Network > Samba Service** to open the **Samba Service** page, see [Figure 6-27](#).

**Figure 6-27 Samba Service**

[Table 6-19](#) lists the samba service parameters.

**Table 6-19 Samba Service parameters**

Parameter	Description
Samba Service	Click <b>On</b> to enable the samba service function manually. Click <b>Off</b> to disable the samba service function. Click <b>Auto On After Detecting USB Storage Plugged</b> : If detecting USB Storage Plugged, it will enable the samba service function automatically.
Host Name	The name of samba host.
Anonymous	Click <b>On</b> to enable the anonymous function. Click <b>Off</b> to disable the anonymous function.
Samba Username/Samba Password	It is valid only if <b>Anonymous</b> is disabled.

2. Click **Apply** button to apply the changes.

## 6.9 Configure the DNS

The section describes how to configure [DNS](#).

The relevant information of Internet status includes **Domain name**, **Host Name** and **DNS**.

### Steps

#### Domain Name

1. On the main page of the ZXHN H3601, select **Local Network > DNS** to the **Domain Name** page, see [Figure 6-28](#).

**Figure 6-28 Domain Name Page**

▼ Domain Name

---

Domain Name

Apply

Cancel

2. Type the **Domain name**.
3. Click **Apply** button to apply the changes.

#### Host Name

4. Click **Host name** to the page, see [Figure 6-29](#).

**Figure 6-29 Host Name Page**

▼ Host Name

---

▼ [New Item](#)

Host Name

IP Address

Apply

Cancel

[+ Create New Item](#)

5. Type the host name in the **Host Name** text box and the **IP Address** in the IP Address text box.
6. Click **Apply** button to apply the changes.

## 6.10 Configure the NetSphere

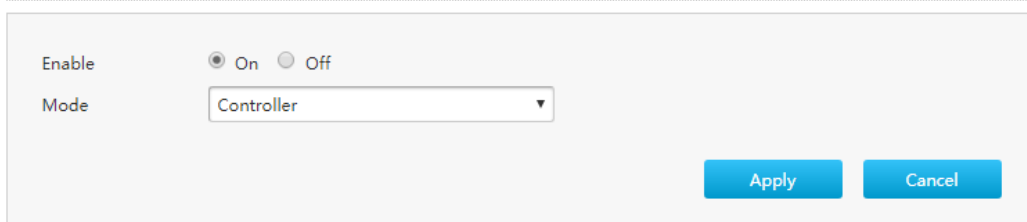
The section describes how to set the device role in the mesh network.

### Steps

1. In the left navigation tree, click **Local Network > NetSphere** to the **NetSphere** page, see [Figure 6-30](#).

**Figure 6-30 NetSphere page**

#### ▼ Global Configuration



Enable ☒ On ☐ Off

Mode Controller ▼

Apply Cancel

2. Set the device role in the mesh network. For a description of the parameters, refer to [Table 6-20](#).

**Table 6-20 Parameter Descriptions for the NetSphere**

Parameter	Description
Enable	Click <b>On</b> button to enable the multi-AP networking function. Click Off button, the device is used as a common wireless router.
Mode	Setting the Device Role in the mesh Network. <ul style="list-style-type: none"><li>● Controller: set the device as the main control AP in the mesh network and connects the LAN interface of the optical cat.</li><li>● Agent: set the device as subordinate AP in the mesh network to connect the WAN interface of the main control AP.</li></ul>

3. Click **Apply** button to apply the changes.





# Chapter 7

## Configure the Management and Diagnosis

---

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## 7.1 Check the Device Status

The relevant information of device status is shown as below.

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Status** to the **Status** page, see [Figure 7-1](#).

Figure 7-1 Device Status Page

▼ Device Information

Device Type	H3601 V9.1
Device Serial No.	ZTEEH80L5P00070
Hardware Version	V9.1.0
Software Version	V9.1.0C1_TY
Boot Version	V1.0.0

Refresh

2. Click **Refresh** to refresh the information.

## 7.2 Configure the Account Management

This procedure introduces how to manage the user accounts and rights.

### Steps

#### Guest Account Management

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Account Management** to the **Admin Account Management** page, see [Figure 7-2](#).

Figure 7-2 Admin Account Management Page

▼ Admin Account Management

Username

admin

Old Password

New Password

Confirmed Password

Apply

Cancel

2. Configure the administrator account management parameters.  
[Table 7-1](#) lists the administrator account management parameters.

Table 7-1 Parameter Descriptions for the Administrator Account Management

Parameter	Description
Username	The user name for the administrator privilege. The default user name of the administrator privilege is <i>admin</i> , which cannot be modified.
Old Password	The default passwords for the Administrator is admin.

Parameter	Description
New Password	Specify the new password.
Confirmed Password	Confirm the new password.

3. Click **Apply** button to apply the changes.

### User Account Management

1. On the main page of the ZXHN H3601, select **Management > Account Management** to the **User Account Management** page, see [Figure 7-3](#).

**Figure 7-3 User Account Management Page**

#### ▼ User Account Management

The screenshot shows a web interface for 'User Account Management'. It contains three input fields: 'Username' with the value 'user', 'New Password', and 'Confirmed Password'. At the bottom right, there are two buttons: 'Apply' and 'Cancel'.

2. Configure the administrator account management parameters.

[Table 7-2](#) lists the user account management parameters.

**Table 7-2 Parameter Descriptions for the User Account Management**

Parameter	Description
Username	The user name for the administrator privilege. The default user name of the administrator privilege is <i>vulladmin</i> , which can be modified.
New Password	Specify the new password.
Confirmed Password	Confirm the new password.

3. Click **Apply** button to apply the changes.

## 7.3 Configure the Login Timeout

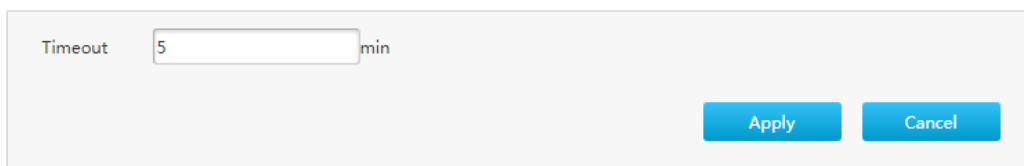
This procedure introduces how to configure the login timeout.

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Idle Timeout** to the **Idle Timeout** page, see [Figure 7-4](#).

**Figure 7-4 Idle Timeout Configuration Page**

## ▼ Idle Timeout



2. Specify the time in the **Timeout** text box, rang: 1-30 min.
3. Click **Apply** button to apply the changes.

## 7.4 Configure the System Management

### 7.4.1 Configure the Device Management

This procedure introduces how to reboot the device or restore the factory default settings.

**Steps**

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > System Management > Device Management** to the **Device Management** page, see [Figure 7-5](#).

**Figure 7-5 Device Management Page**

## ▼ Reboot Management

Reboot: Please click the "Reboot" button to reboot the device. This process will take about 5 minutes.

Note: The reboot operation will interrupt all current interactions.

**Reboot**

## ▼ Factory Reset Management

Factory Reset: All the parameters will be restored to their default settings. The device will reboot automatically at the end of this process.

Note: After this operation is finished, all user configured settings will be lost and the device default settings will be restored.

**Factory Reset**

2. On this page, you can perform the following operations:
  - Click **Reboot** to reboot the ZXHN H3601 device.
  - Click **Factory Reset** to restore the factory default settings.

## 7.4.2 Upgrade Software

This procedure introduces how to upgrade Software.

### Prerequisite

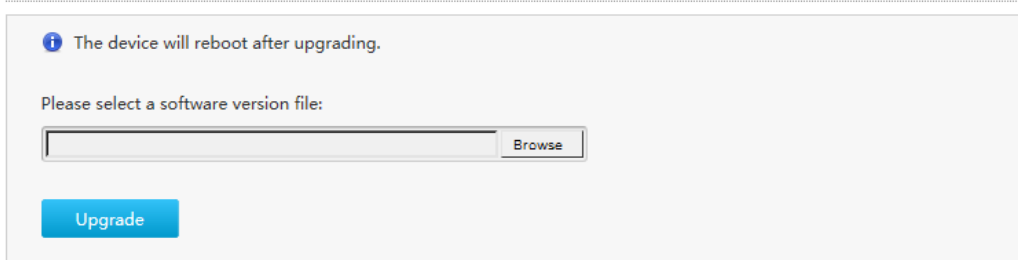
Before upgrading software, make sure that the upgrade file is ready.

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > System Management > Software Upgrade** to the **Software Upgrade** page, see [Figure 7-6](#).

**Figure 7-6 Software Upgrading Page**

#### ▼ Software Upgrade



2. Click **Browse** to select the upgrade version file.
3. Click **Upgrade**.



### Note

The system prompts the upgrade progress. During the upgrade process, do not cut off the power supply. Otherwise, the device may be damaged.

Generally, the software is upgraded by the ZTE CORPORATION engineers. If the user wants to upgrade the Firmware, contact the local office of ZTE CORPORATION to obtain the latest Firmware version.

## 7.4.3 Manage the User Configuration

This procedure introduces how to import or export the user configuration file.

User configuration refers to the customized configuration based on the factory defaults. The user can configure the device settings based on his own requirements, and the configuration can be backed up.

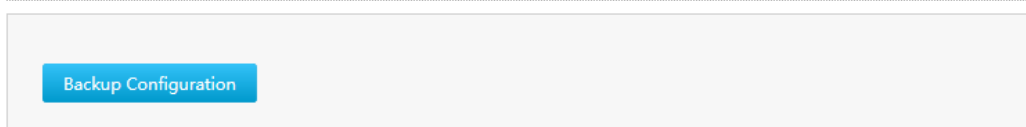
### Steps

#### Backup User Configuration

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > System Management > User Configuration Management** to the **Backup User Configuration** page, see [Figure 7-7](#).

**Figure 7-7 Backup User Configuration Page**

▼ Backup User Configuration



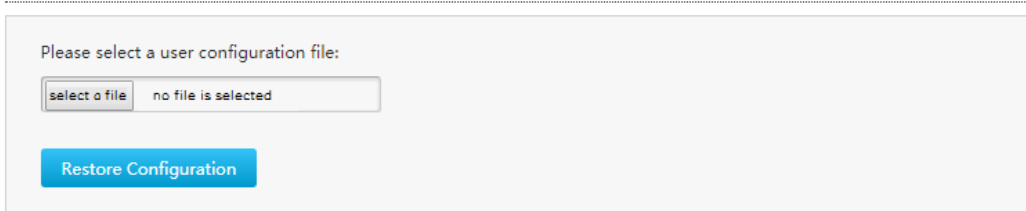
2. Click **Backup Configuration** to export the user configuration file.

### Restore User Configuration

1. Click **Restore User Configuration** to the configuration page, see [Figure 7-8](#).

**Figure 7-8 Restore Configuration Management Page**

▼ Restore User Configuration



2. Click **Browse** to select the user configuration file, and then click **Restore Configuration** to restore the device to the user configuration.

## 7.5 Configure the Mirror function

This procedure introduces how to perform the mirror configuration.

If the mirror configuration is performed, the packets at the WAN side will be copied to the specified LAN interface, and it can be used for the network analysis and troubleshooting.

Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Mirror Configuration** to the **Mirror Configuration** page, see [Figure 7-9](#).

**Figure 7-9 Mirror Configuration Page**

▼ Mirror Configuration

Mirror

☐ On ☒ Off

Source

WAN ▼

Destination

Please select... ▼

Apply

Cancel

2. Configure the mirror configuration parameters.

[Table 7-3](#) lists the user mirror configuration parameters.

**Table 7-3 Parameter Descriptions for the Mirror Configuration**

Parameter	Description
Mirror	Click <b>On</b> to enable the mirror function. Click <b>Off</b> to disable the mirror function.
Source	Network-side WAN interface.
Destination	User-side LAN interface.

3. Click **Apply** button to apply the changes.

## 7.6 Configure the TR069 function

The section describes how to configure the TR-069. TR-069 provides the parameters of the TR-069 configuration features.

The relevant TR-069 includes Basic Configuration and Certificate Management .

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > TR-069** to the **TR-069** page.
2. Click **Basic Configuration** to the TR069 basic configuration page, see [Figure 7-10](#).

Figure 7-10 Basic Configuration Page

▼ Basic Configuration

ACS URL

http://0.0.0.0:9090/digest/tr069

Username

hgw

Password

\*\*\*\*\*

Connection Request URL

http://0.0.0.0

Connection Request Username

ACS

Connection Request Password

\*\*\*\*\*

Periodic Inform

☒ On ☐ Off

Periodic Inform Interval

43200s

Authenticating ACS

☐ On ☒ Off

Apply

Cancel

3. Configure the TR069 basic configuration parameters.

Table 7-4 lists the TR069 Basic Configuration parameters.

Table 7-4 Parameter Descriptions for the TR069 Basic Configuration

Parameter	Description
ACS URL	The URL of the automatic configuration server that manages the device.
Username/Password	User name and password for the ZXHN H3601 to log in to the automatic configuration server.
Connection Request URL	Connection request URL, which is automatically generated by the system.
Connection Request Username/ Connection Request Password	User name and password for the TR-069 connection authentication that the automatic configuration server provides when it logs in to the ZXHN H3601 device.
Periodic Inform	Enable the periodic inform function.
Periodic Inform Interval	Periodic inform interval of the device (unit: second).
Authenticating ACS	Enable the TR-069 authenticating ACS.
ACS CA Certificate Chain	<ul style="list-style-type: none"><li>● Auto: Automatically select the first chain certificate authentication or the second chain certificate authentication</li><li>● Chain1: The first chain certificate authentication</li><li>● Chain2: The second chain certificate authentication</li></ul>

4. Click **Apply** button to apply the changes.



## STUN Configuration

1. Click **STUN Configuration** to the STUN configuration page, see [Figure 7-11](#).

**Figure 7-11 STUN Configuration**

### ▼ STUN Configuration

The STUN Configuration interface includes an 'Enable' section with radio buttons for 'On' and 'Off', where 'Off' is selected. Below this is a text input field for 'Server Address'. At the bottom right, there are two buttons: 'Apply' and 'Cancel'.

2. Configure the STUN configuration parameters. [Table 7-5](#) lists the STUN configuration parameters.

**Table 7-5 Parameter Descriptions for the STUN Configuration**

Parameter	Description
Enable	After the STUN function is enabled, clients after NAT (or multiple NAT) can find their public network addresses, and determine the type of NAT and the Internet port bound to the local port. These information is used to create UDP communication between two hosts after the NAT router.
Server Address	The address of the server

3. Click **Apply** button to apply the changes.

## Certificate Management

1. Click **Certificate Management** to the certificate management page, see [Figure 7-12](#).

**Figure 7-12 Certificate Management**

### ▼ Certificate Management

The Certificate Management interface features an information icon and a message: 'The uploaded certificate will take effect only after the device reboots.' Below this is the 'ACS Interactive Certificate' section, which prompts the user to 'Please select an ACS CA certificate:'. It includes a text input field, a 'Browse' button, and an 'Import Certificate' button at the bottom.

2. Select a ACS CA certificate chain.
3. Click **Browse** to select an ACS CA certificate, and click **Import Certificate**.

## 7.7 Manage the Log

This procedure introduces how to manage the log.

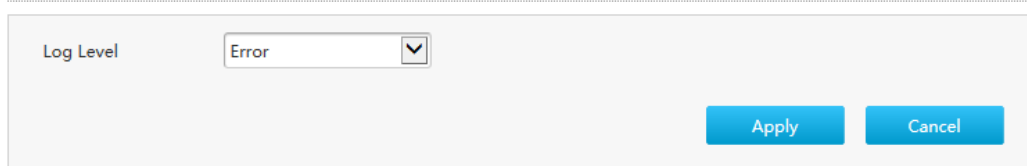
### Steps


#### Log Level Management

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Log Management** to the **Log Management** page.
2. Click **Log Level Management** to the log level management page, see [Figure 7-13](#).

**Figure 7-13 Log Level Management Page**

#### ▼ Log Level Management



Log Level:  

3. Configure the log management parameters.  
[Table 7-6](#) lists the Log Management parameters.

**Table 7-6 Parameter Descriptions for the Log Level Management**

Parameter	Description
Log Level	<p>Options (ranked from low to high):</p> <ul style="list-style-type: none"><li>● Debug</li><li>● Informational</li><li>● Notice</li><li>● Warning</li><li>● Error</li><li>● Critical</li><li>● Alert</li><li>● Emergency</li></ul> <p>The system stores only the logs of the selected level and above levels.</p>

4. Click **Apply** button to apply the changes.

#### System Log Management

1. Click **System Log Management** to the system log management page, see [Figure 7-14](#).

**Figure 7-14 System Log Management Page****▼ System Log Management**

Save Log ☒ On ☐ Off

Apply Cancel

Log Output

HWVer:V1.1.0;  
SWVer:V1.1.0\_TY.1T3;

P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID2], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID3], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID4], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID5], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID6], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID7], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID8], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID1], count[0]  
P0000-00-00T00:00:26 [Warning] call dbAPIQryView failed!!IF\_ID[DEV.WIFI.SSID2], count[0]

Refresh Download Log Clear

2. Configure the system log management parameters.

[Table 7-7](#) lists the system log management parameters.

**Table 7-7 Parameter Descriptions for the System Log Management**

Parameter	Description
Save Log	Click On to enable the system log function.

3. Click **Apply** button to apply the changes.
4. (Optional) Click **Refresh** button to get the latest information.
5. (Optional) Click **Clear** to clear the logs.
6. (Optional) Click **Download Log** to download the log file from the log server.

**Security Log Management**

1. Click **Security Log Management** to the security log management page, see [Figure 7-15](#).

**Figure 7-15 Security Log Management Page**

▼ Security Log Management

---

Save Log ☐ On ☒ Off

Log Output

2. Configure the security log management parameters.

[Table 7-8](#) lists the security log management parameters.

**Table 7-8 Parameter Descriptions for the security Log Management**

Parameter	Description
Save Log	Click On to enable the security log function.

3. Click **Apply** button to apply the changes.
4. (Optional) Click **Refresh** button to get the latest information.
5. (Optional) Click **Download Log** to download the log file from the log server.

### Remote Log Management

1. Click **Remote Log Management** to the remote log management page, see [Figure 7-16](#).

**Figure 7-16 Remote Log Management Page**

▼ Remote Log Management

---

Remote Log ☐ On ☒ Off

2. Configure the remote log management parameters.

[Table 7-9](#) lists the remote log management parameters.

**Table 7-9 Parameter Descriptions for the Remote Log Management**

Parameter	Description
Remote Log	Click On to enable the remote log function.

3. Click **Apply** button to apply the changes.

## 7.8 Network Diagnosis

The section describes how to diagnosis. **Diagnosis** provides the parameters of the Diagnosis configuration features.

The relevant information includes ping diagnosis, trace route diagnosis, DSL line diagnosis and simulation.

### Steps

#### Ping Diagnosis

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > Diagnosis** to the **Diagnosis** page.
2. Click to open **Ping Diagnosis** page, see [Figure 7-17](#).

**Figure 7-17 Ping Diagnosis Page**

#### ▼ Network Diagnosis

[What should be noticed when diagnosing?](#)

The screenshot displays the 'PING Diagnosis' configuration page. It includes a header 'PING Diagnosis' with a dropdown arrow. Below the header, there are two input fields: 'IP Address/Host Name' and 'Egress' (which is set to 'Auto'). A blue 'Diagnosis' button is located to the right of the 'Egress' field. At the bottom of the page, there is a large, empty rectangular box labeled 'Diagnosis Result'.

3. Set the parameters. For a description of the parameters, refer to [Table 7-10](#).

**Table 7-10 Ping Diagnosis Parameter Descriptions**

Parameter	Description
IP Address or Host Name	Destination IP address or host name.
Egress	Data direction. If you want to detect the connection with an external address, select a WAN connection.

4. Click **Diagnosis** to diagnose the connection. The system pings the specified address. The system performs ping operations for four times by default, and the operation results are displayed in the bottom box.

### Trace Route Diagnosis

1. Click to open **Trace Route Diagnosis** page, see [Figure 7-18](#).

**Figure 7-18 Trace Route Diagnosis Page**

Trace Route Diagnosis

IP Address/Host Name

Egress

Maximum Hops

Wait Time  ms

Protocol

Diagnosis Result

2. Set the parameters. For the description of the parameters, refer to [Table 7-11](#).

**Table 7-11 Parameter Descriptions for Trace Route Diagnosis**

Parameter	Description
IP Address /Host Name	Destination IP address or host name for the Trace Route operation.
Egress	To detect the connection with an external address, select a WAN connection.
Maximum Hops	Maximum number of hops that the Trace Route packets require for arriving at the destination, default: 30.

Parameter	Description
Wait Time	Time allowed for receiving a response in ms. If no response is received during this period, an asterisk is displayed. If multiple asterisks are displayed, it indicates that the corresponding node fails.
Protocol	Options: <a href="#">UDP</a> and <a href="#">ICMP</a> .

**Notice**

- Please don't refresh this page while diagnosing, otherwise the diagnosis result may be displayed improperly.
- If a new diagnosis is triggered when the current diagnosis is still running, the device will only respond to the new diagnosis, and the current diagnostic result will not be saved.

## 7.9 Check the ARP Table

The relevant information of [ARP](#) table is shown as below.

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > ARP Table** to the **ARP Table** page, see [Figure 7-19](#).

**Figure 7-19 ARP Table Page**

▼ ARP Table

IP Address	MAC Address	Status	Interface
192.168.1.2	00:1e:90:3f:5c:39	Available	LAN

Refresh

2. Click **Refresh** button to refresh information.

## 7.10 Check the MAC Table

The relevant information of [MAC](#) table is shown as below.

### Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > MAC Table** to the **MAC Table** page, see [Figure 7-20](#).

**Figure 7-20 MAC Table Page**

▼ MAC Table

Interface	VLAN ID	MAC Address	Active Time(s)
SSID1	None	88:cb:87:31:42:8a	98.16

Refresh

2. Click **Refresh** button to refresh information.

## 7.11 Configure the IPv6 Switch

This procedure describes how to enable or disable IPv6 support for the ZXHN H3601.

Steps

1. On the main page of the ZXHN H3601, select **Management&Diagnosis > IPv6 Switch** to the **IPv6 Switch** page, see [Figure 7-21](#).

**Figure 7-21 IPv6 Switch Page**

▼ IPv6 Switch

**i** 1. IPv6 switch change will take effect only after the device reboots.  
2. Before changing IPv6 switch, please ensure that all configuration parameters about the related applications are set properly.

IPv6 Switch ☐ On ☒ Off

IPv6 Status Off

Apply Cancel

2. To disable IPv6 support, set **IPv6 Function** to **Off**, and click **Apply**.

**Note**

The configuration takes effective after the device is restarted.



# Chapter 8

## Troubleshooting

---

### **The Power indicator on the front panel is off after the power button is pressed**

- The power switch is off.
- The power adapter is not correctly connected to the device. Be sure to use the power adapter supplied with the device.

### **Unable to connect to the network**

- Check that the Ethernet cable is correctly connected to the WAN interface and the Ethernet cable is correctly connected to the LAN interface.
- Check that the WAN indicator on the front panel is on and the Internet indicator on the front panel is solid green or flashing green.

### **Restore the factory default settings**

After the power is on, use a needle to press the button for over 5 seconds to restore the default factory settings.